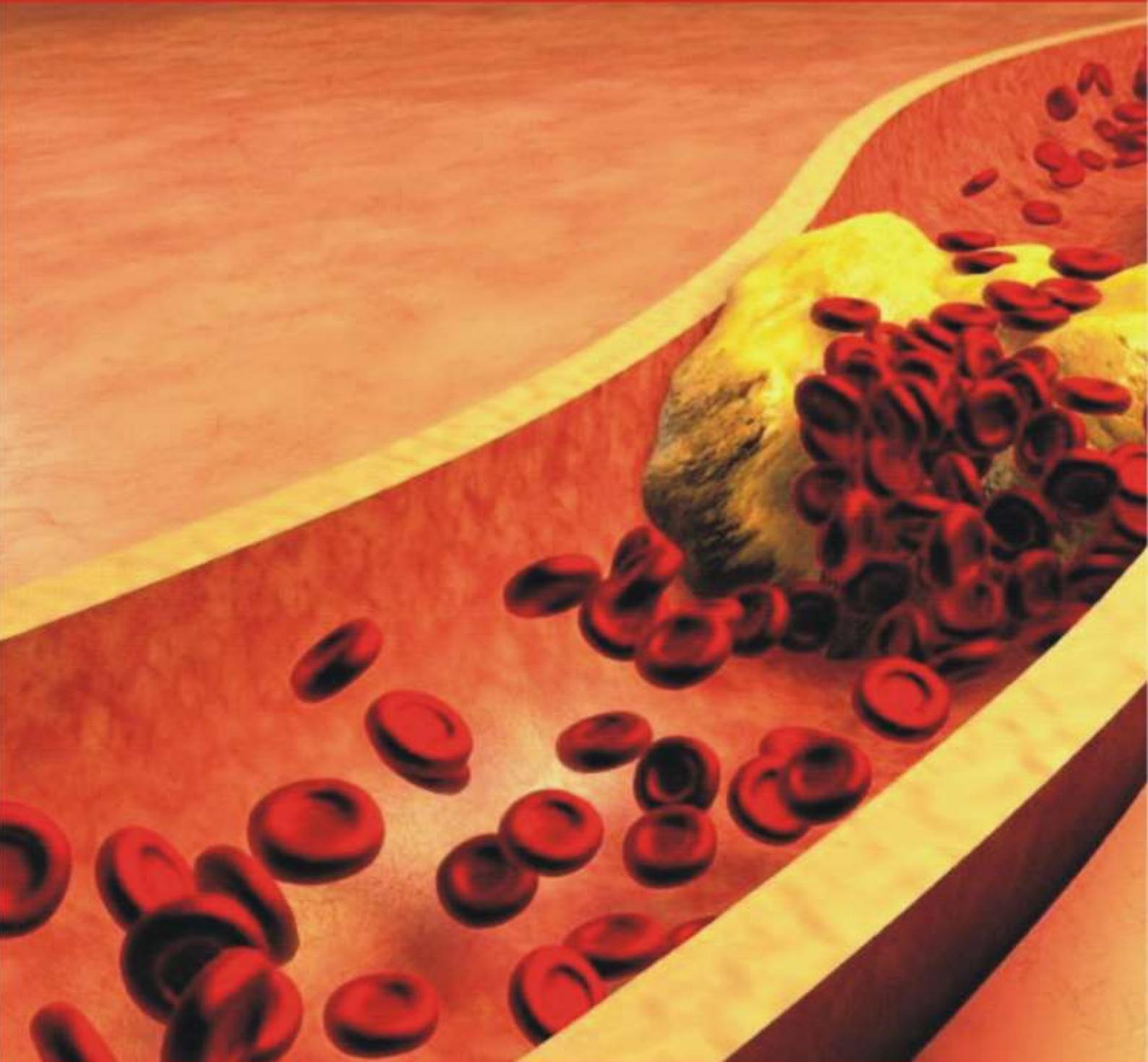


RASA PRADOSHAJ VIKAR EVAM CHIKITISA

-Dr. Vipin Kumar



RASA PRADOSHAI VIKAR EVAM CHIKITSA

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PREFACE

Ayurvedic physiology emphasizes that our body is composed of *sapta dhatus* (rasa, rakta /blood, asthi /bone etc), *tridosha* (vata, pitta & kapha) these are physiological subtle units which maintain the whole body physiology, *Mal* (stool, urine & *sweda*/ sweat). All the body's metabolism i.e. anabolism / growth & catabolism / degradation mainly depends upon these tridosha & seven dhatus.

Among these *seven dhatus* the initial one namely rasa dhatu is most important & perform a number of functions in the body to keep us healthy. If rasa dhatu is healthy / normal in amount & function the growth of next *dhatu* rakta / blood etc will also be pure / *shudh*, adequate in nature & amount. We can compare *rasa dhatu* with plasma, the fluid blood component. As per *Ayurvedic physiology* the *rakta* /blood is life. The causes of the *vikriti* /pathogenesis of *rasa dhatu* mainly depends upon life style. Faulty life style *ahar* / diet & *vihar*/ habits, habitat are responsible to keep it healthy /pure or in pathological condition. Now a days there are big challenges for medical science i.e. Obesity, Diabetes mellitus, Hypertension & Cardiac diseases are due to the pathological state / *vikriti* of that *rasa dhatu* / plasma. By practicing the healthy life style we can remain safe from these & many more diseases.

“Naro hitaharvihar sevi smikshyakari vishyevsakta, data sama satyapar kshmanaptosevi ch bhavtyaroga.”Ch.sh.2/46

The person remain free from any disease if one live in the right way of life style, acts after appropriate & senceful thinking, not so much involves himself / herself in the physical desires as greedy, anger etc, donates to the needy, has sense of equality among the human being, truthful, sensible & serving the noble /divine persons.

I cordially thanks to my wife Dr. Deepa chauhan, my lovely kids Vinayak and Shatakshi for their valuable support & inspiration to compete this book.

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Rasa Dhatu- *Rasa dhatu* is the first & most important *dhatu* among the seven dhatus described in *Ayurveda*. It nourishes the body.

“Rasajam purusham vidyadrasam rakshet prayatnat,

Annaatpanachch matimanacharach chapytnidrit.” *Su.su.14*

Rasa dhatu contains all the nutrients required to nourish the body. Hence *Acharya* mention human body as product of *Rasa*. As *Rasa dhatu* nourish the body & help it to keep it healthy, one should always put efforts to protect the *Rasa dhatu*. This can be achieved by consuming healthy food, plenty of liquid like water, milk & *takra/ butter milk* etc. & practicing healthy life style. Due to indigestion impair quality of *Rasa dhatu* will be produced *Rasa* refers directly to the plasma / non cellular portion of the blood, the lymph & interstitial fluids. As watery secretions, *rasa dhatu* relates in directly to breast milk & menstrual fluid. *Rasa* is more than fluid, it is nourishing sugar. & nutrients mix with plasma & are carried by *Vyan vayu* to all the tissues of the body. As such, when *rasa dhatu* is healthy, a person feels satiated. The satisfaction one feels is both physical & physiological. *Rasa dhatu* provides the body & mind with sustenance. It is the sap that runs throughout the vessels of our body. It is important to take good care of it & assure that life satisfying.

Amount & Function of *Rasa dhatu*-

“Navanjaly purvsyaharparinamdhatu, yem rasa ityakshate. Rasastushti preenam raktapushtim ch karoti.” *Su.su.14*

Rasa dhatu, the first in the sequence of seven dhatus, is formed by the action of digestive enzymes / *Jatharagni* on the *ahar rasa*. The function of the *rasa dhatu* is to strengthen the *rakta* & help nourish the entire body. The first *dhatu* formed after the complete digestion & assimilation of the food, is *rasa dhatu*. The amount of the *rasa dhatu* is 09 *anjali* or 1700 ml approximately.

- Saturation&Satisfy the needs of each &every tissue.
- Nourish- nourish the cells, help in metabolism of cell.Waste material back to heart. If waste material will not washed from the cell leading to intoxication of the cell.
- Haemopoietic&blood formation, hydration & transportation to the body.

Rasa dhatu- 1.Poshak 2.Pushya

Pushya rasa dhatu can be compared with extracellular fluid in the body, salivary secretions, Cerebro Spinal fluid, Lymph, Pleural fluid, Peritoneal fluid &many more fluids present in the body. According to Modern medicine Plasma is the liquid part of the blood that ensures that the blood cells can flow throughout the body. All the blood cells remain suspended in it.

“*Sharirmaharahstarpyati vardhyati dharyati yapyati chadrasht hetuken karmana.*” Hence *tarpan*-perfusion, *vardhan*- growth, *dharan*- to provide strength &*yapan*- routine circulation are the main functions, these can be assumed by the observing the function &net result in our body.

Colour - yellow straw

Composition – plasma makes up around 55% of the total volume of blood in the human body. Therest ofthe blood is a composition of Red& white blood cells.

92 % water

6-8 % proteins

0.8 % salts

0.6 % lipids

0.1 % glucose

Function – Transport system, delivering various materials between the cells,

plasma also transport harmful materials such as urea to kidneys. Plasma plays a central role in retrieving the materials that are necessary for body's survival. It retrieves material from such organs as the Liver & Intestine. These materials tend to be the results of digestion & includes

- Amino Acids
- Mineral Salts
- Vitamines
- Glucose
- Hormones
- Lipids & Ions

In addition to transporting materials plasma also play an important role in the body's defence. Plasma also contains antibodies, antitoxins& fibrin, which is a clotting agent that works with the platlets to help in healing the wounds.

Shrotos swarup- “ *swadhatusamvarnani vrittsthulanyanuni ch, shrotansi dirghanyrkratya pratansadrshani ch.*”

Shrotas are similar the color of *dhatu* transported by them, in shape they may be *vritt/* circular, *sthul/* heavy, *anu/tiny* & *pratan/* long as climber.

Shroto dushti symptoms- “ *Atipravartti sang ova siranam granthyapi va, vimarggamanam chapi shrotsam dushtilakshanam.*”

Shroto dushti symptoms are as transportation/ circulation of more amount or stop completely, sira/ veins become nodular/ granthi or circulation/ flow of *dhatu* in opposite unnatural direction.

Shrotodushti nidan- “*Aharasch viharasch ye syaddoshgune sam, dhatubhirvigunaschapi shrotsam sa pradushak.*” *ch. vi.5/23*

The ahar & vihar/ life style are similar to the properties of doshas i.e.

increasing them & opposite to the dhatus properties, all factors are harmful for the shrotas.

Dusht rasajroga Chikitsa-

“Rasjanam vikaranam sarvlanghanamoshdham.....”ch.su.28

All types of *langhanm/* process making the body light/ *laghu* had been described in the treatment of dust *rasaj vikars/ vyadhis*.

“Yatkinchit laghavkaram dehe tatlaghanam smritam.”

Langhan’s 10 procedures-*“ Chatusprakara sanshudhi pipasamarut atapo, pachnanyaupvasasch vyayamscheti langhanam.”ch.su.22/18*

The four purification procedures described in *panchkarma i.e. vaman, virechan, shirovirechan& niruh basti* (prepared from *kwath* which is dry in properties), *anuvasan basti* is prepared from *sneh* hence its not *laghu* in nature i.e.causing *brahanan* hence excludes here. Thirst, Air, Sunlight, Digestive medicines, fasting&Exercise these are 10 measures causing lightening/ *langhan* in the body.

Langhan dravya-*“ Laghuushnateekshan vishadam ruksam suksham kharam saram, kathinam chev yaddravyam prayastallanghanam smritam.” Ch.su.22/12*

The material/ *dravya* are light, astrignant, hot, rough, tiny, dry, laxative & hard in nature usually causing lightening / *langhan* of the body.

Rasa vah shrotas – *“Rasavahanam shrotma hridyam mulam dash ch dhamanya.” Ch.vi.5/10*

The mula of *rasa vaha shrotas* is heart&*dus dhamniyan*.

Shrotodushti hetu/ causes - *“ Guru sheetamatisnigdhaamti matram samshnatam, rasa vahini dushyanti chintyanam chatichintnat.” Ch.vi.5/14*

If Foods/ *ahar* taken are extremely heavy, cold, sticky/*snigdha*, excess in amount in nature, excessive thinking, the *rasavaha shrotas* will be *prakupi*.

DUSHTA RASA JANYA VIKAR

“Ashradha charuchiasyavairasyam arasgyata, hrillaso gauravm tandra sangmardo shrotasamrodha klaivya pandutawam saad krishangata nashoagner ayathakalam balay palitani ch raspradoshaja roga.”ch.su.28/9-10

Role of *vikrit Rasa dhatu* in the *Vyadhi utpatti* / Disease origin-

- *“Aamam annrasam kechit kechitu malsanchayam prathamadoshdushti ch.” madhukosh*

According to some Acharya- Aam is the *annarasa*, remain undigested after the complete digestion of food. *Malsanchya* & initial aam *dosh* become *dusht/ prakupit*.

- *“Amashyasth kayagnerdaurbalyadvipachita, adya ahardhatury sa aam eti kirtite.”*

Due to the weakness of *kayagni/ jathragni* in the stomach/ *aamshya* first *dhatu* i.e. *aam* remain undigested & producing the *aam* in the circulation through *rasa dhatu*.

- *“Avipakvamsanyuktam durgandham bahu pichchhila, sadnam sarva gatrnam ityabhidhiyete.”M.Ni.*

After the incomplete digestion of food the aam remain free due to the macromolecule

- *“Ushmanoalpbalatwen dhatumadyampachitam , dushtmamashyagatam rasmamam prakshate.” As.hr.su.13*

Due to lack of *ushma/ jathragni adya/initial rasa dhatu* remain *apacihitam/* undigested & this *dushtijanya aamrasa dhatu* remain in *amashya* & known as *aam/* antigen.

- *“Aamen ten samprakta dosha dushyasch dushita sama itupdishyante ye ch rogastadudbhava.” As.hr.su.*

➤ “*Aharasya rasa shesho yona pakwoagnilaghvat, sa mulam sarvaroganam ityibidhiyte.*”

Due to the *laghuta* / decrease the *pachakagni* remaining of the *ahar* after digestion is *rasashesh*/ undigested is the cause of all the diseases.

Ajeerna Lakshan/ Symptoms-“ *Tasya lingamajeernasya vishtambh sadanam tatha shirsoruk ch murchha ch bhram prasthakatigrah, Jrambha angmard trishna ch jwarschhardi pravahanam arochakavipakasch ghoramannvisham ch tat, sansraajyamanam pitten daham trishnam mukhamyan, janyatymalpittam ch pittjaanschaprana gadan, yakshpeenas mehadin kaphjan kaphsangtam karoti vatsanshrstam vatjansch gadan bahun, mutrrogasch mutrastham kukshirogan shkridtam rasadibhisch sanshrastam kuryadrogan rasadijan.*” Ch.ch.15/45-50

Spasm, exhauste, headache, syncope, vertigo, stiffness in low back, yawning, fatigue, thirst, fever, vomiting, loose motion, anorexia, indigestion, severe food poisoning, burning sensation in mouth, origin of acid peptic symptoms these symptoms are due to pittadosha. Consumption, sinusitis & diabetes due to the involving the kapha. And due to vatajdosh disease of urinary tract & small intestine, due to the *rasa dhatu* disease of large intestine.

KRASHANGATA

Nidan/ Aetiological factors- “*Sewa rukshaanpananam langhanam pramitashanm, kriyaatiyog shokasch vegnidravinigrha. Rukshasyodvardanam snanasyabhyas prakritirjara, vikaranushya krodha kurvantyatikrisham naram.*” Ch.su.21/10-12

Regular consumption of dry diet, drink, fasting, taking low amount of food as per him/his daily workings. Perform more physical & mental works or excessive use of *panchkarma* / body purifications, living in grief atmosphere for longer time, escapes from natural urges as urine, stool & sleep. Dry *udvartan* (rubbing of dry medicated powder on the skin), bathing with the dry medicated water or performing more times bathing, *prakriti* of the person *vat* predominant, old age, suffering any chronic disease & angry nature all these factors make a person *krish*/ lean & thin.

“*Tatrapunarvaatlaha sevinoativyayamvyavayadhyanbhayashokdhyan ratrijagranpipasakshut kashayalpaashanprabhritibhirupshoshita, rasadhatu shariramnukramannlptwann pridati, tasmadatikashryam ch jayate.*” Su. Su.15

Consumption of *vatal ahar*, excessive performing of exercise, sexual acts, study, fear, grief, stress & anxiety, less sleep at night, remain on longer time hunger & thirst, consumption of *kashay rasa* & less amount of food as per requirement. Due to all the above said causes dryness / scanty of *rasa dhatu* & during time of circulation in the body unable to nourish the remaining all the other later forming *raktadi dhatus* & ultimately body becomes *krisha* / lean & thin.

DISADVANTAGE OF ATIKRISHA-

“*Vyayamatisauhityam kshutpipasamayoashdham, krisho na sahate tdwatisheetoshnamaithunam. Pleeha kasa kshaya shwaso gulmoarshanshshudaradi ch, krisham prayoabhidhavant rogash grahnamata.*” Ch.Su. 21/13

Atikrish / lean person can not tolerate the exercise, food, hunger, thirst, disease, medications, cold & hot atmosphere & sexual acts. They commonly suffer the diseases of spleen, cough, consumption/ TB, Dyspnea, abdominal lumps, haemorrhoids, *udar roga*/ ascities & *grahni* /IBS.

SYMPTOMS - “*Sushak sphigudargreevo dhamnijaalsantat, twag asthisheshoati krish sthulparva naro mat.*” Ch. su. 21/15

The buttock, abdomen & neck region of the *krish* person becomes dry & visible the net of arteries & veins. The body is so lean that only skin & bones are remaining & the joints becomes thick.

CHIKITSA SIDHANTA-

LINE OF TREATMENT- “*Satatam vyadhitawetawtisthul krisho naro, satatam chopchayo hi krashanebrahanerapi.*” Ch.su.15/16

The both the personlas i.e. Obese & lean remain suffering from any disease, the treatment of them always should be *krashan* & *brahan* respectively.

However *atikrish*/ lean personality is better than the *Atisthaulya*/ obese because if both are suffering from same disease & both having similar opportunity for the treatment the disease will be difficult to cure in the case of obese as compared to lean/ *krisha*.

“*Guruchaptarpanam cheshtam sthoolanam karshanam prati, krashanam brahanartham ch laghu santarpanam ch yet.*” Ch.su.21/20

The diet should be *guru* & *aptarpan* for the treatment of *sthaulya* & for the treatment of *krisha* the diet should be *laghu* & *Santarpan*.

The diet should be vata, kapha & meda nashak which is teekshan , ushna & ruksha basti, ruksha ubtan. The regular use of guduchi, musta, triphala, takrarishta, madhu, vidang, shunthi, kshar, teekshan lauh bhashma flour of barely

/yava, amalki powder, will be beneficial in the treatment of krisha person. In the same pattern vrahata panchmool kwath with madhu & shilajit + agnimanth swaras, priyangu, oat, barley, mung, kulathi, arhar, parwal, amalki in the food while madhu + water as anupan & different arishta to destroy the meda, mansa & kapha is also beneficial.

Life Style - Sleeping, happiness, soft luxurious bed, mental peace, avoidance of exercise, stress & sexual act, seeing the lovely objects & scenes, new grains & wine, meats of different varieties, curd, milk, butter/ ghee, sugarcane juice, meats, wheat, jaggery, rice with the medicated bitter herbs & similar food articles.

Snigdha, madhur dravya, oleation, snigdha ubtan/ rubbing the oily herbs, bathing, good odours flowers & garlands, white clothings, purification of body according to dosha, season & by the use of rasayan & vajikaran combinations one can get rid of atikrisha/ lean body.

By living Stress free life, high calorie foods & proper sleep atikrisha /lean can become normal healthy person.

EMACIATION

Weight loss is a serious medical problem. It should be taken seriously. It is decided by the Body Mass Index (BMI). Emaciation has so many causes.

DEFINITION- A loss of equal to or more than 10 kg is significant. When we decide the weight loss than weight loss of 2% in a week, 5% in a month or 10% or more in three months should be considered as weight loss.

CRITERIA - Weight losses should be kept properly in the observing case. BMI (weight in kg divided by height in meters square) is the basic criteria for the deciding the weight loss or emaciation. It clearly indicates the division between emaciated, normal weight, overweight, obese & very obese persons.

BMI- 1. Less than 17 kg/m² – Emaciated, Between 17-20 kg/m²- Under weight, 20-25 kg/m² – Normal weight, 25-30 kg/m²- Overweight & greater than 30kg/m² is considered as obese.

In both the cases i.e. low weight & obese persons should take medical advice & complete check up to rule out the causes & treatment accordingly.

CAUSES –

There may be so many causes of weight loss. It may be psychosomatic. This weight loss may be due to 1. Increased external losses. 2. Inadequate dietary intake in relation to the demand & 3. Increased energy consumption due to various reasons.

In the assessment the Physician should perform a quick assessment of the conditions, causes of occurrence & severity of symptoms.

Weight loss is recognized on the basis of-

- Very rapidly weight loss.
- Signs presenting the cause of the weight loss
- Its impact on general health.

For the better assessment about the effects of weight loss, the physician will consider the some landmarks as the weight and body mass index (BMI), dietary intake & severity of signs. This assessment will based on appropriate the amount of calories ingested and whether the needs of different components of foods as minerals & vitamins are retained.

Severity are evaluated on the basis of the rapid weight loss, impact on the general conditions specially fatiguability, decreased intellectual performance and susceptibility to different infections. The physician also looks for the signs of malnutrition based on the clinical & laboratory parameters. Main focus on the protein and energy deficiencies, oedema, cardiac and respiratory failure, pulmonary & urinary infections, locomotory disturbance or delayed wound healing. The causes vary and are identified in relation to appetite and dietary intake. A physician should emphasis on the following facts.

Weight loss with involuntary loss of appetite, weight loss with eating disorders & weight loss without loss of appetite. In the absence of signs of depression, causes involuntary loss of appetite may be present.

- **DECREASED DIETARY INTAKE** - Even appetite is good but intake of food decreased may be cause of weight loss. The main possibilities are restrictive diets due to poverty, ignorance in the family, due to aesthetic cause may be marked weight loss, Psychological problems, anxiety,

depression, unfavourable meals, insomnia, persistent pain specially toothache and other related cause.

- **GASTROINTESTINAL** - diarrhoea in the case of various diseases such as liver disease, pancreatitis, Crohn's disease, IBS & Ulcerative colitis etc. In case of intestinal parasitic infection as tapeworms, giardiasis, ascariasis & amebic liver abscess. Certain digestive diseases as dyspepsia, dysphagia, discomfort/ hard food, problem in denture can induce weight loss.
- **INFECTION** - associated with fever, tuberculosis, respiratory infection & insufficiency, HIV, endocarditis, chronic inflammatory disease, Behcet's disease, sarcoidosis, different types of cancers.
- **CHRONIC DISEASE** - Chronic liver disease (CLD), Chronic renal failure (CRF), GIT diseases associated with signs of deficiency as celiac disease, complication of gastrointestinal surgery & mesenteric ischemia.
- **NEUROLOGICAL** - Parkinsonism, Alzheimer's disease or Amyotrophic Lateral Sclerosis (ALS) may be the cause of weight loss.
- **POISONING** - Chronic alcoholism, Tobacco chewing, excessive consumption of tea & coffee, drug addiction & taking drugs for longer period. Over medication is a major cause of weight loss in the elderly.
- **ANOREXIA NERVOSA** - for the purpose of weight loss usually associated with stop of menstruation, bulimia & vomiting may be causes of weight loss.
- **INCREASED METABOLIC** - Hyperthyroidism, Diabetes mellitus, hypercalcemia, adrenal insufficiency & pheochromocytoma. Catabolic conditions can occur in Diabetes mellitus, hyperthyroidism due to increased function of the thyroid gland, pheochromocytoma tumor of the adrenal gland resulting in increased secretion of certain hormones causing hyperactive state.

TREATMENT

Treatment of Cause. The same treatment can not apply on all the patient of weight loss. It should be a comprehensive and depends upon the person, taking into account the cause of weight loss, living conditions and personal life, addictions or eating habits. Counselling about social & psychological issue if any. The nutrition programme designed based upon depends the weight loss observed by the physician and the present state of malnourished.

AROCHAK

Ashradha , Arochak, Bhaktdwesha, Abhaktch Chhand & Annanabhinandan are the synonyms of *Aruchi / Anorexia*. However all have similar practical word i.e. *Aruchi*. “*Satyamapi bubhukshayam abhyavaharaasamarthyam aruchi*” (*madhukosh*)

A person is hungry & food is also tasty, even no taste in food & deglutinate the food, is known as *aruchi*.

Nidan/ aetiological factors- “*Vatadibhi shokbhayaatilabh krodher manoghnashan gandhrupe, arochaka syu.... parihrishat dant kashay vakrasch mato anilen.*” *Ch.ch.26/124*

Vatadi dosha, grief, fear, greedy, anger & factors harmful for psyche & unfeavable food destroy the desire of food.

Samprapti ghatak –

Dosha – kapha predominant vatadi.

Dushya – rasa

Shrotas - annavah& rasa vaha

Adhishthan - amashya, jiwha & manovah shrotas

Shrotodushti lakshan – sanga

Symptoms of *Vatadi dosha* as per according to the particular *dosha*.

1. To remove the depression, stress, anger , grief, & prepare the happy atmosphere by the different entertainment means, likewise friend circle etc.
2. Prepare use full food that is interesting & beneficial to heart. Even unwholesome / apathya diet should be given in small amount, if its interesting to the sufferer.

3. Purification of body as per the predominant of dosha as in Vaataj aruchi – Basti , in Pittaj - virechan & in kaphaj - vaman should be perform .

4. *Kaval graham , mukhdhawan*, happy atmosphere , consoule , repeated tongue cleaning & medicating smoking should be performed.

5. According to the nature of the patient , condition, time, place different types of paanak , avleha , takra, shadava, churna & intresting wholesome diet should be prepared for the patient.

6. Food should be light, easy to digest , likewise, dry & according to the time & place.

Single drugs - *pudina, anardana, adarak, kali mirch, imli, ajwain, kala namak, bhrista shwet jeerak, pippali etc.*

Panak – *Tintidik, amlika, lemon, rasala & takra.*

Avleha - *Vidang yoga, Matulung keshar , Adrak yoga.*

Churna - *Krishna marich yoga with honey for kaphaj aruhi. Yavanishadhaw, Dadimashtak, avipattikar.*

Aashav- Drakshasava

“Annasya shrawan-smaran-darshan-gandh-sparshaneyrtrodwijate se bhaktdwesh”(*madhukosh*)

By the hearing, recalling, seeing, touching or smell of food the no desire/ hate from food is known as *Bhaktdwesh*.

Abhaktchchhand “ *Kupitasaya bhayaratsya abhicharhtasya ch yasya naanne bhawetashradha so abhaktachchhand uchyte*” (*madhukosha*)

Acharya Charak used the term bhakt ka ansan, while Acharya Shushrut bhaktopghat for the same.

NIDAN/AETIOLOGY - *arochak* is of two types 1. Sharirik 2. Mansik

According to the modern system of medicine the origin of anorexia is stomach, which is the seat for appetite loss or increase of it. Gastritis, gastric carcinoma, hypochlorhydria, anaemia are the some common GIT causes for loss of appetite. While Hepatitis, liver disease, Tuberculosis, Chronic renal failure, different types of fever, any chronic medication are the prominent causes of loss of appetite.

LINE OF TREATMENT-

“Basti samirne pitte virekam vamanam kaphe, Kuryad hridyaanukulani harshanam ch manoghnaje.” Ch.ch.26/220

Basti in the vataj predominant aruchi, Virechan in the paittik while in kaphaj predominant aruchi vaman should be performed, aruchi originate due to psychological stress/ upset cardioprotective & joyfull activities should be practisized.

Kawal grah (medicated drugs kept in mouth) for mouth freshening herbs , kwath & medicated smoking. Diet which is liking to the psyche of patient, happiness & counselling of the person.

ANOREXIA NERVOSA

Anorexia Nervosa is a psychological and may be life-threatening eating disorder. The patients suffering from this psychological eating disorder are typically low body weight relative to their height. Anorexia nervosa refers to self-starvation & progressively lack of appetite.

BMI (Body Mass Index) is a criteria that treatment suggested use to assess the accuracy of body weight for an individual suffering from an eating disorder. Observations of eating patterns, exercise, and personal habits may represent the diagnosis. Those struggling from it frequently fear gaining weight and have a ugly body image. Patient occasionally believe that appear much heavier than they are.

TYPES-

There are two common types.

1.BINGE/ PURGE –The person suffering with this type o will often purge after eating.This decreased the fear of weight gain and some of the guilt of having ingested forbidden or highly restricted food. The behaviour by the individual with this type of anorexia may purge by exercising excessively, vomiting &/or abusing laxatives.

2.RESTRICTIVE – The individual suffering from restrictive type of anorexia is often perceived as highly self-disciplined. They completely avoid the overeating, high calories foods. They take very less calories than they are needed to maintain a healthy weight. This is very unusual & hard form of starvation. Both types show similar symptoms as fear of extra weight gain and abnormal eating patterns.

CAUSES - This eating disorder isbased on genetic factor, personality habits and environmental factors.

Some environmental factors that may contribute to the habit of this eating disorder are-

- The effects of the slim in media that constantly express these people as an ideal type.
- Professions and careers that promote being thin such as acting, different dances & modeling
- Prior pressure by the friends & colleague to be thin or smart.
- Biological factor - Irregular hormonal functions/ Genetics

SIGN & SYMPTOMS -

An individual suffering from anorexia nervosa may present one or several signs and symptoms as follows.

- Rapidly weight loose or significantly underweight & emaciated
- Obsession with calories and fat & milk contents of food
- Ritualistic eating patterns as cutting food into tiny pieces, eating alone, and/or hiding food
- Use of fixed food, recipes or cooking.
- Amenorrhea- absence of menstruation or absence of at least 3 consecutive menstrual cycles
- Depression / dull phase.
- Development of lanugo: soft, fine hair grows on face and body
- Sensation of feeling cold specially in extremities
- Loss / thinning of hair
- Avoidance of social relations, family, friends & Stays in loneliness.

TREATMENT

Well qualified team to manage the situation consisting of therapist, physician, psychology stand nutritionist are necessary. Effective holistic treatment of anorexia involves three important components as -

- **MEDICAL** - The top priority in the management of anorexia nervosa to look out any serious medical problem that may have resulted from the it such as malnutrition, electrolyte imbalance, amenorrhea and arrythemia.
- **NUTRITIONAL** - weight restoration, implementation of a balanced meal, and education about normal eating patterns.
- **THERAPY** - The target of this part is to recognize underlying causes associated with the eating disorder, heal from traumatic life events, learn healthy coping skills and further develop the capacity to express and deal with emotions

Mansik / Physcological Causes - *Shok* / deep grief, *bhaya*/ terror, *atilobha*/ greedy, *krodh*/ anger & *roop* /seen & *gandh* /smell, which are not favourable for the psychic personality ultimately cause the anorexia.

PANDU ROGA

Nadan/ Aetiological factors- “*Vyayamamlam lavnani madyam mridam divaswapanamteev teekshanam, Nishavmanasya pradushyamraktam doshastwacham pandurtamnayati.*” *Su. Ut. 44*

Excessive physical exercise- exercise beyond to the body capacity or without proper amount of food calorie ultimately will be a cause off malnourished & ultimately person will be anaemic/ *pandu rogi*.

Excessive consumption of acidic, salty & Spicy food these are responsible for the improper digestion & absorption of food materials specially iron, vitamin B², vitamin B¹² because of absence of castle’s intrinsic factor & change in ph of food taken.

Consumption of alcohol/ madya- The properties of *madya* are opposite to the nature of *kaph* & *oaj*. In our heart *sadhak pitta*, *avlambak kaph*, *pran vayu*, *ashta bindu of par oaj* & *satwa* are present collectively along with initial *dhatu of our body i.e. rasa dhatu* & *mula of pranvaha, rasa vaha shrotomula, madya/* alcohol is entirely opposite to the *oaj* etc. In chronic alcoholics deficiency of vitamin B², vitamin B¹², causing Wernick’s korasokof syndrome, tearing of lower portion of oesophagus called, Mallory weiss syndrme a prominent cause of bleeding in these persons, one another cause of bleeding in chronic alcoholics is rupture of oesophageal varises, due to portal hypertension (liver cirrhosis). In almost all the cases of chronic alcoholics the ignorance of food at the appropriate time by his/ her family members & by due to him/ her is the one leading cause of malnutrition, malnourished & ultimately become aneamic/ *pandu rogi* & other allied complications.

Pica- cause of anaemia due to probable infection of different types of worms & hampered the absorption of digested food before the assimilation due to blocking the surface absorptive area of intestinal villi.

Day time sleeping- Harmful for health as per *Ayurvedic* physiology the day sleeping is contraindicated almost in all the seasons except the *grishm/* june of month. *Tridosha* i.e. *vat*, *pitta* & *kapha* became *prakupit* & responsible for the number of diseases along with *pandu*. Due to the *nidan* described above collectively cause *prakupit* of *pitta*, *kapha* & ultimately *tridosha* causing the origin of *pandu*. *dosha* seated beneath the skin & give the appearance of paleness/*pandu*.

Poorvaroop/Prodromal symptoms-

Twagsphotana shtheevan gatrased mridbhakshanam prekshan kootshotha, Vinmutratwpeetmathaavipako bhavishyatsya pursarani."

"Hridyaspandanam rokshayam shwedabhav shramstathha." Ch.ch.16

Before the understand the prodromal symptoms / *poorvroop* of the *pandu* / anaemia one should understand the symptoms of *rasakshaya* by different *Acharya* as follows.

"Ghattate sahte shabdham nouchhadravati shulyte, hridyam tamyati swalpchestasyaypi raskshaye." Ch.su.17/64

The abnormal word *Ghattan* / palpitation of heart is the chief symptom of *pandu*. Intolerance of high frequency & louder sound.

shulyte hridyam- mild to moderate pain in Cardium region due to ischaemia (low haemoglobin) & in *Ayurvedic* point of view *rasakshaya* as described by *Acharya*.

Tamyte/ syncope or mild comma on even mild exertion - due to hypoxic situation of brain.

“*Raskshaye hritpida kampshosho shunyta trishna ch. Su.su.15*

As *Acharya Shushrut hritpeeda* / pain in pericardium region, *kamp*/ tremor due to hyperdynamic condition, consumption / *shosho* due to partial failure of circulation along with nutrients. *Shunyta* / feeling of black out, exhaust & *trishna* or thirst perhaps due to plasma/ *rasakshya* water contents & electrolytic embalance.

Palpitation, dryness in the body, decrease the sweating & easily fatigue are the prodromal symptoms of *pandu*/ anaemia.

Palpitation/ *hridyaspandanam*- due to the decrease the natural amount of *rasa* & ultimately *yakta* / blood, heart increase the work load of perfusion to all the body, decrease in stroke volume ultimately tachycardia & palpitation feels to the patient.

Dryness/ *roksayam*- The chief function of *rasa dhatus* nourishing / *tarpan* the each & every tissue of our body, due to *rasakshaya ruksha* / dryness in all the body observed in chronic case of anaemia.

Lack of sweating / *shwedaabhava*- due to improper nourishment of body by *rasadhatu* through arteries this symptom present.

Fatigue/ *shramastathha*- hypoxic condition of body due to lack of blood/*rakta*, *rasadhatu*/ plasma, the easily fatigueability observed.

Samprapti/ pathogenesis- “*Samudeeranam yada pittam hridaye samvasthitam, vayuna balina kshipram samprapya dhamnirdash. Prapannam kewalam deham twagmansantarmashritam, pradushya kaphvatashrik twagam mansani karoti tat, pandu haridraharitan varnan bahuvidhanstwachhi.*” Ch.ch.16

Due to faulty life style aggravation of *pittadhatu* accumulates in the heart from where strong *vayu* pumps it into *dash dhamni* / aorta & arteries very quickly this *dushit pitta dhatu* settle down beneath the *twak* & *mansa*. By making *prakupit* the

kapha, vata, rakta, twak & mansa dhatu give color of yellow, pale, blue etc & originate the disease *pandu / anaemia*.

“*Dosha pittpradhanastu yasy kupyanti dhaushu shaithilyam tasya dhatunam gauravam ch upjayte vrajanti, tato balavarnsnehapyooajso guna kshayamatyartham dosh dushya prdushnat. Soalprakto alpmedasko nisar shthilindriya, vaivarnyam bhajate tasya hetu shranu slakshanam*” Ch.ch.16/4-7

Prakupit dosha specially *pitta* predominance do the *dushit* of reast of *dhatu*s, causing the lazyness of *dhatu*s & heaviness in the body. The strength, complexion, softness/ lubrication of the body, *oaj* / the constituent of natural immunity / *vyadhikshamatwa* all are decreased upto the remarkable level, after the mixing of *dosha- dushya*. The person will have lesser amount of *rakta*/ blood, *meda* & *sar*/ essence of all the seven *dhatu*s & *oaj* hence *nisar* & *shthilindriya* are the symptoms of *oaj kshaya*.

Samprapti ghatak-

Dosha- Pitta

Dushya- rakta (Su.), twak, rakta & mansa (ch.)

Shrotas- rasa & rakta vaha

Adhishthan- Twak

LAKSHAN/ SYMPTOMS- “*Sambhuteasmin bhavet sarv karnkshwedi hatanal, durbala sadnoanndwit shrambhramnipidit. Gatrashulajwar shwasgauravaruchimannara, mridteriv gatrech piditonmathiteriv,*

Shunakshikuto haritsheernloma hataprabha, kopan shishirodweshi nidralu shtheevanoalpvak. Pindikodweshtan katurukpadsadnani ch, bhavantyarohanayaservisheshshchasya vakshyte.” Ch.ch.16/14-16

Tinnitus in ear- due to *roskshay* / decrease the endolymph & ultimately different types of non existing sounds felt by the person. **decrease the digestive power-** due to dearrangement of *pitta*. **weakness**— due to lacking of *rasa, rakta* & later on *dhatus*. **fatigue**- due to weakness in *dhatus*. **anorexia**- symptom of *rasa dushti*, exhaust. **vertigo**— due to vitiation of *pitta, vat* & involvement of *raja*, bodyache. **fever**- due to *ras dushti* & *rakta kshaya* & ultimately decrease the body immunity/ *vyadhikshamatwa*. **dyspnea**- due to *rakta kshaya*. **heaviness in the body**- due to *samarasit* accumulates in the *shrotos*/ channels of circulation, loss of appetite. **different types of bodyache**- as tearing & crushing, periorbital oedema, body hairs discoloration & falling premature, **destroy the normal body lusture**- due to decrease the *oaj* seated in the heart, **anger** -irritating & hunger short tempor nature due to lack of *sadhak pitt* & *av lambak kapha*. **Avoid the cold objects** - air due to vitiation of *vata* hence subcutaneous *meda* get reduced property of *vata* is *sheet* /cold. **Excessive sleeping** -drowsiness due to decrease blood supply & ultimately haemoglobin concentration. **recurrent spitting** - waterbrush due to *saam rasa dhatu* & in iron deficiency the shedding of layer of gastric mucosa. **less talkative** -is due to physical & mental weakness due to *rakta* & *oaj kshaya* / decreased but not destroy. **Spasm**- in calf muscles, pain in thigh & lower legs prograssively due to weakness of heart specially right ventricular hypertrophy these symptos aggaravates specially climbing on higher altitude.

ASADHYA/ INCURABLESYMPTOMS-“*pandurogaschirotpanna kharibhuto na sidhyati, kalprakarshanatshono na yasya pitani pashyati. Badhalpvitakatwam sakaphamharitam yoatisaryte, deen shwetatidagdhanganams chhardi murchhatrishardit. Se nashatyashrikkshyadayasch pandu shwetatwamapnuyat, eti panch vidhsyoktam pandurogasya lakshanam.*”

Ch.ch. 16/31-33

The chronic case of *pandu*, in which dryness & oedema in the entire body, person seeing every objects yellow, whose bowel is constipated or less amount of fecal matter of green color passes with the *kapha* /mucous or suffering from diarrhoea , exhausted ill looking appearance, the organs turned into white in color or organs appears as burning part with the complications as vomiting, syncope & excessive thirst. The person in which due to any cause heavy loss of blood & severe pale looking body due to lack of haemoglobin, these are five incurable symptoms of *pandu*/ anaemic patient.

“Anteshu shoonamparihinmadhyam klanam tathanteshu ch madhyshoonam, gude ch shefasyath mushkyosch shoonam pratanyamanam ch visangykalpam, vivarjyet pandukinam yashoarthi tathaatisar jwar nipiditam ch.”Su.ut.44

According to Acharya Shushrut these symptoms are also incurable as person whose extremities got swollen/ oedematous & middle part of body becomes lean & thin & visa versa, oedema in anal region, penis & scrotum region, recurrent attack of black out /syncope, unconsciousness. This type of patient should be avoided whose also suffering of diarrhoea & fever along with abovesaid symptoms.

LINE OF TREATMENT-

“Vatike snehbhushitham paittike tiktsheetalam, shlaishmike katutiktoshnam vimishram sannipatike”Ch.ch.16/16

In *vatik pandu* *sneh*predominant medicines, in *paittik pandu tikta rasa*& *sheetal* medicines should be used, In the *shlaishmik pandu* medicines should be *katu tikta*& *ushna* in properties&in *sannipataj pandu*missed medicines should be prefarrable.

“Tatra pandvamaye snigdhsteekshaneurdhvanulomike sanshodhyo mridubhistikte kamali tu virechne.” Ch.chi.16

In the curable *pandu* after *snehan*/ oleation *teekshan* *vaman* & *virechan* should be performed, in the patient of *kamala*, *virechan* with the help of *mridu* medicine prepared with the *tikta dravya*.

Different ghr̥it- *Dadim ghr̥it, katukadya ghr̥it, danti ghr̥it, pathya ghr̥it, draksha ghr̥it & haridr̥adi ghr̥it,*

Gomutra hareetiki, lauh bhashm, navayas lauh, Mandoor bhashm, Suwarn makshik yoga, Yograj, Shilajatu vata k& Punarnava mandoor.

Single drugs- *Swaras / fresh juice of any one Triphala, guduchi, darvi, nimb mix with madhu* & should be drink at morning will subside *kamala*.

ANAEMIA

Anaemia is the qualitatively &/ or quantitatively decreased in the haemoglobin concentration of the body. Anemia happens when there is a decreased number of circulating red blood cells in the body. It is the most common blood disorder in the general population world wide.

INCIDENCES- It currently affects an estimated 1.62 billion people globally. It results when other diseases interfere with the body's ability to produce healthy red blood cells or abnormally rise in the red blood cell breakdown.

- Anemia affects an estimated 25 % of the world's population.
- Children have the highest risk, with an estimated 45 % developing anemia world wide.
- More than 400 types of Anemia have been identified so far.

SYMPTOMS-

The most common symptom of anemia is a feeling of fatigue, easily fatigue & lack of energy, paleness of skin, increased heartrate (Tachycardia), shortness of breath, chest pain, headache & light headedness.

Some forms of anemia can have specific symptoms:

- **Aplastic anemia** - Fever, frequent infections, and skin rashes
- **Folic acid deficiency anemia** - irritabilit, diarrhoea & smooth bald tongue.
- **Hemolytic anemia** - Jaundice, dark colored urine, fever & abdominal pain.
- **Sickle cell anemia** - painful swelling of the extremities , fatigue & jaundice

CAUSES-

For the survival of life body needs the RBCs. RBCs carry hemoglobin iron containing complex protein. These molecules carry oxygen from the lungs to all the body. Some diseases and conditions causes a low level of red blood cells. There are many types of anemia with multiple causes. It may be sometime difficult to point out the exact cause. General overview of the common causes of the three main groups of anemia.

1. Anemia caused by blood loss-

Iron deficiency anemia (IDA) is the most common type of anemia. It is caused by a shortage of iron mostly through blood loss. When the body loses blood it reacts by pulling water from tissues outside into the blood stream to maintane the blood flow in the vesseles. This additional water dilutes the blood. Rapid blood loss can include surgery, childbirth, trauma, or a ruptured blood vessel.

Chronic blood loss is more common in cases of anemia. Causes of it may be peptic ulcer, haemorrhoids, anal fissure, worm infestations, menstrual bleeding as metrorrhagia, portal hypertension, intestinal polyps, drugs as antiinflammatory (NSAIDs)– aspirin & ibuprofen etc different types of cancer.

2. Anemia caused by decreased or faulty red blood cell production-

Bone marrow as puggy tissue found in the center of big bones of our body. It is essential for the production of red blood cells. Bone marrow produces stem cells, which forms all the three components of blood as red blood cells, white blood cells & platelets. Number of diseases & chemicals can affect bone marrow & it starts the formation of abnormal WBCs, responsible for a number of diseases including leukemia, This disrupts normal production of red blood cells.

Other anemias caused by decreased or faulty red blood cells include are as follows-

- **Sickle cell anemia-** Abnormally breakdown of RBCs takes place. The crescent shaped blood cells obstruct in smaller blood vessels.
- **Iron deficiency anemia-** Due to the lack of iron in the body the production of RBCs decreased remarkably. Causes may be poor diet, menstruation, recurrent blood donation, strenuous exercise, certain GIT conditions such as Crohn's disease, surgical removal of partial / total gut and some foods hampering the absorption of iron as excessive tea, coffee, egg yolk & some other food articles lack in the diet which can increase the iron absorption as vitamin c, zinc etc. Ignorance of some foods in diet are good source of iron as carrot, beet roots, peanut, banana, animal protein, guava, date are prominent in this list.

- **Bone marrow and stem cell problems:** Aplastic anemia occurs when low / no stem cells are present in the bone marrow. Some drugs responsible for bone marrow depression as chloromycetin. Thalassemia occurs when red blood cells cannot mature properly.
- **Vitamin deficiency anaemia-** Vitamin B₁₂ & folate both are essential for the production of red blood cells. If one of them is deficient red blood cell production will be inadequate. As seen in the megaloblastic anemia and pernicious anemia.

3. Anemia caused by the destruction of red blood cells-

Life span of RBCs are 120 days . But due to many causes they can be destroyed or removed earlier from the blood stream.

One of them is autoimmune hemolytic anemia in this condition the body's immune system identifies its own red blood cells as a foreign substance and destroy them.

Excessive hemolysis (red blood cell breakdown) can occur in following conditions-

- Infections- malaria (specially P. falciparum), kalazar.
- Drugs - some antibiotics, NSAIDS
- Venoms- Snake & spider
- Toxins liberated from advanced kidney or liver disease.
- An autoimmune attack - hemolytic disease
- Severe hypertension
- Vascular grafts and prosthetic heart valves

- Blood Clotting factors.
- Splenomegaly

TREATMENT -

There is a range of treatment for anemia. They all aim to increase the red blood cell count. This increases the amount of oxygen the blood carries.

Treatment will depend on the type and cause of anemia.

- **Iron deficiency anemia:** Iron supplements or dietary changes. If haemorrhage cause of loss of blood rule out the cause & treat it accordingly.
- **Vitamin deficiency anemias:** Treatments include dietary supplements and vitamin B¹².
- **Thalassemia:** Treatment includes folic acid supplementation, splenectomy (removal of spleen) in severe conditions blood transfusions & transplantation of bone marrow.
- **Anemia due to chronic disease** - Anemia associated with a grave, chronic underlying condition. There is no specific treatment & the focus on the underlying disease.
- **Aplastic anemia-** Recurrent blood transfusions or bone marrow transplant.
- **Sickle cell anemia-** Blood transfusion is the main part of treatment along with the symptomatic treatment. Folic acid, IV fluid, antibiotics & anticancerous treatment.

- **Hemolytic anemias-** Patients should avoid medication, immunosuppressant drugs & treatment for infections. Plasmapheresis or blood-filtering may be required in some cases.

DIET-

If iron deficiency is the cause of anaemia add iron-rich diet will be helpful in treatment. The following foods are high in iron-

Iron-fortified cereals & breads, dark green leafy vegetables, banana, guava, blackgram, apple & pomegranate. Pulses, beans, brown rice, white & red meats, Nuts, seeds, Fish, Tofu, Eggs, dried fruits, specially apricots, raisins & prunes.

NASHEAGNI / DEARRANGED DIGESTIVE ACTION

Dehagni-“Aaurvarnbalam swasthayamutsahopchayo prabha, oajastejoagnaya pranaschokta dehagnihetuka. Shanteagneo mriyete yukte chiram jivatyanamay, rogisyardwikrate mulamagnistasmanniruchyte.” ch.ch.15/1

In the human body age, complexion, strength, state of health, joy, growth, lusture, *oaj*, essence, *agni* (all the digestive & metabolic activities) & life all are dependant on the *dehagni / jathragni*. If this *jathragni* subsides then man will be die. If any pathology in this then human will be diseased hence *agni* is described as the root of life, strength & complexion.

Importance of *jathragni*-*“Yadannam dehdhatvojo balvarnadiposhkam, tatraagnirheturaharanna hyapakvadrasya.”* The food which is the nutrition of body, *dhatu*, *oaj*, strength & *varna* etc. The *jathragni* is the chief factor hence by the undigested / semidigested *ahar rasa* its imposible to originate/produce *rasadi dhatus* normal/ pure. All the *dhatus rasa*, *raktaadi* will be *vikrat* /abnormal if *ahar rasa* is not completely formed by the *jathragni*/ digestive enzymes.

Treatment - There are so many causes of dearrangement of the digestive power / *jathragni* some of them are as acute & chronic liver disease, chronic renal disease, TB, chronic alcoholism, sedentary life style, any type of infection, many GIT diseases as IBS, peptic ulcer, psychological factors as stress, depression & many more causes may be in different persons. For the successful treatment of this condition first one shoud trace the cause & then start treatment accordingly.

KHALITYA & PALITYA

“Tejoaniladye sah keshbhoomi dagdhashu kuryat khalati narasya, kinchit dagdhva palitani kuryadhariprab hatwam ch shiroruhanam. Ityurdhvajatrutthgadek deshastantre nibidhoayam shunytartham, Ateh param bheshajasangraham tu nibodh sankshepta uchchyamanam.” Ch.ch.26/132-133

Treatment- *“Khalitya palite balyam harilomini ch shodhitam, nasyestaile shirovakra pralepeschapyupachret.” Ch.ch.26/262*

Purification of body by panchkarma, nasya, oiling on head & face are beneficial in the treatment of khalitya/ hair fall , palitya/ premature graying & other discoloration of hairs.

Different types of oils had been described in the treatment portion as follows-

Vidarigandhadi tail, Sahcharadi tail, mahaneel tail, prapondrikadi tail, Priyaladi yog, Tiladi yog,

Palitnashak yog- *lavan/ salt , vinager, acid, kanji & lauh powder all mix & heating with rice powder, till it becomes a thick paste, apply on the scalp at night & at morning washed with triphala kwath.*

USEFUL DIETS IN PREVENTING HAIR FALL –

Carrot, Oat, Spinach, Eggs, Chicken, Sweet potato, Pulses, Curd, Nuts & dry fruits, Carrot, Strawberry, Fruits rich in vitamin C as lemon, guava, orange , chilly & Amla. All high protein & vitamins rich diets.

BALDNESS/ HAIRLOSS

Hair loss is typically considered a sign of aging. But now a days no single cause of hairfall, it's a multifactorial. In normal conditions around hundreds of hairsfalls per day. But exceeds to it should be considered as a disease.

CAUSES-

1. Nutritional deficiency
2. Stress
3. Drugs
4. Hormonal
5. Post chronic illness
6. Any systemic disease
7. Localized skin disease
8. Unhygiene condition of scalp

Shedding of hair is different from hair loss, when a hair falls and doesn't grow back. People often shed hair during stressful conditions as, childbirth, divorce, depression, deep sorrow. Alopecia is the term for hair loss, and it doesn't only happen on the scalp. Genetics / hereditary play an important role in the hair loss. Some systemic illnesses as liver, renal & different leukemias and medications as chemotherapy, radiotherapy in the cancer treatment, can cause hair loss on the entire body.

Except the heredity, noticeable hair loss can be caused by wide variety of factors including:

HAIR STYLES/ CHEMICALS - Continuous use of rubber bands, rollers, or pulling hair into tight styles cause inflammation & scar hair follicles. Incorrect use of chemicals as dyes, bleaches & straighteners. Hair loss can be permanent depending on the degree of damage.

HORMONAL IMBALANCE - Hormonal imbalance from birth control pills, pregnancy, childbirth, menopause & hysterectomy in female can induce more hair follicles into the dormant phase.

ILLNESS / SURGERY- The stress of illness & surgery may prompt hair loss. Some specific conditions can also aggravate the condition as thyroid disorders, syphilis, iron deficiency, SLE, severe infection. Alopecia areata an autoimmune condition causes rapidly hair loss all over the body.

DRUGS & VITAMINES- Chemotherapy, which attacks hair follicles is a well-known reason for hair loss. Other medications side effects include hair loss in the treatment of high blood pressure & gout. Hypervitaminosis A also contribute.

NUTRITIONAL DEFICIENCY - Continuous dieting or eating disorders such as bulimia and anorexia may temporarily cause hair follicles to hamper growth. This can also occur from the deficiency of protein, vitamin & mineral in the meal.

AGEING - A natural effect on hair growth.

DIAGNOSIS-

Dermatologists after examine the person scalp and take a careful history of drugs & stress factors.

Biopsy - A small patch of skin that includes the hair follicle to determine if an autoimmune disease such as Systemic Lupus Erythematosus is the cause of the hair loss.

TREATMENT & MEDICATIONS- Widerange from the mild to the extreme and the cheap to the costly. Depends on how much hair is gone.

HAIR WEAVES / WINGS- Useful in temporarily cases.

TOPICAL CREAMS & LOTION - Minoxidil, can restore some hair growth, especially in those with hereditary hair loss. It is applied directly to the scalp. finasteride comes in pill form and is only for men. According to the American Academy of Family Physicians (AFP) it may take up to six months.

ANTI INFLAMMATORY DRUGS - Steroid-based creams or injections can calm follicles damaged or inflamed by excessive chemicals or mechanical pulling.

SURGERY- Due to alopecia areata, loss of hair in limited 1-2 areas, men are the suitable for surgical hair replacement. This procedure include grafting, which transplants from 1 - 15 hairs per disc shaped graft to other locations. Side effects include swelling, bruising & headache.

LASER TREATMENT -This treatment help stimulate hair follicles and improve growth. Best results can be achieved when combine laser treatment with another intervention.

NATURAL & ALTERNATIVE THERAPY - According to the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) alternative therapies not so helpful in hair growth & repair most of them are not supported by medical research. However treatments that claims improve alopecia areata include

Chinese herbs, acupuncture, zinc and vitamin supplements, evening primrose oil and aroma therapy.

LATEST TREATMENT DEVELOPMENT -

The drug facitinib useful in the treatment of arthritis, suggest that it can also treat alopecia universalis, a condition of completely hair loss all over the body. Man had completely regrown the hair on his scalp, had visible hair growth all over the body, after the three months of treatment. But It's not clear the mechanism of action of facitinib, but many works are going on in this direction. Researchers are also looking always to clone hair or use stem cell therapy to treat alopecia.

KLAIVYA

“Beejdhwajopghatabhyam jaryashukra sankshyat, klaivayam sampadyate tasya shrinu samanyalakshanam.” Ch.ch.30/154

Four main causes are described here beej/ shukra upghat, dhvaj/ jananendriya upghat, jara/ old age & excessive shukra /semen kshaya/ loss, will be originate the infertility/ klaivya.

Lakshan/ Symptoms- *“Sankalpravano nityam priyam vashyamapi striyam, na yati lingshaithilyat kadachidyati va yadi, shwasart shwinngatrasch moghsankalpchesht.Mlanshishnasch nirbeeja syadetata klaivyalakshanam...” ch.ch.30/155*

Beejopghat janya klaivy nidan/aetiology & lakshan/ Symptoms-

“Sheetrukshaalp sanklishtavirudhajeernbhojnat, shokchintabhayatrasat streenam chatyarthamsevnat, abhicharadvishrambhadrasadinam ch sankshyat, vatadinam ch vaishmaytathevvanshanachrmata, naarinamrasgyatwat panchkarmapcharat, beejopghatadbhawati panduvarna sudurbal, alppranoalpharshasch premdashu bhavennara, hritpandurogtamak kamalashrampidit, chardyatissarshulart kasawarnipidte beejopghatajam klaivyam.” Ch.ch.30/160-161

Dhajopghatjanya klaivya-*“Atyamllavan kshar virudhasatmyabhojnat, atyambupanadvishmat pishtanngurubhojnat, dahiksheeranupmansa sewnadryadikarshnat, kanyanam chev gamnad yonigamnadapi, deergh roganam chirotsashtam tathev ch rajaswlam, durgandham dushta yoni ch tathev ch parishrutam, idrashim pramadam mohadyo gachhet kamharshita ,*

chatushpadabhighamnat shefaschabhighatat , adhavadwa medhrasy shastr dant nakhkshatat kashth prahar nishpeshachukanam chatisevnat retashch pratighatadhawaj bhang pravertte.” Ch.ch.30/162-167

Dhwajbhang klaivya-

“Shyvthurvedna medhre rogaschevoplakshyte, sphotasch teevra jayante lingpako bhavtyapi, mansvardhirbhvechasya vrana kshipram bhavantyapi, pulakodaksankash shrava shyavarunprabha, balyikurute chapi kathinsch parigrah,jwarastrishnabhramo murchhachhardui schasyoopjayte, raktam krishnam shrvechapi nilimavillohitam, agninev ch dagdhasya teevro daha svedna, vasto vrishnyorvapi seevanyam vanksheshu ch, kadachitpichhalo vaapi vaapi pandu shravasch jayte shyavthurjayte mand stimitoalpparishrva, chirach pakam vrajati sheeghram vaath pramuchyate, jayante krimyaschapi klidyate putigandh ch, vishiryte manischasy medhram mushkavthapi ch, dhwajbhangkritam klaivymatiyetat samudahritam etam panchvidham kechid dhawajbhangam prakshte.” Ch.ch.30/168-175

Jaravastha janya klaivya- *“Klaivayam jarasambhavam hi pravakshyamyath tatshruru jaghanyamadhyam pravaram vaystreevidh muchyte, atipravaysam shukram prayash ksheeyte nranam.” Ch.ch.30/176-177*

“Rasadinam sankshyat ch tathevavrishyasevnat, balveeryaandriyanam ch karmnev parikshyat, parikshyadaushchpynahar aksmat klamat, jarasambhavajam klaivyamati peterhetubhirnarnam, jayte ten soatyartham

kheendhatu sudurbala vivrno durvalo deen kshipram vyadhimayashrute ati jarasambhavam hi...”

Sanshodhan/ Purification - *“Sushwinna snigdh gatrasya snehyuktam virechanam annashnam tat kuryadathvaasthapanam punah prdadyanmatiman*

vaidyastatstamnuvasyet, palasherandmushtadye paschadasthapapyetat.” Ch.ch.30/196-197

Dhwajbhang klaivya Chikitsa-

Dhwajbhang kratamklaivyam gyatwa tasyacharet kriyam, pradehan parishekansch kuradwa raktmokshanam snehpanam ch kurveet ssneham ch virechnam, anuvasanam tat kuryadathvaaasthapanam punah vrnachch kriya srvastatra kuryadvichksanam.” Ch.ch.30/199-200

Jara sambhav janya klaivya Chikitsa- *“Jarasambhavje klaivye kshyaje chev karyet, snehshwedoppanasya ssneham shodhanam hitam.” Ch.ch.30/202*

“Kseersarpi vrashya yoga vastyeschev yapna rasayan progasch tyorbhaishajmuchyte.” Ch.ch.30/203

INFERTILITY

Infertility- when a couple unable to conceive even after regular unprotected sex. Possibility may be that one partner cannot contribute in conception & a female partner is unable to carry a pregnancy to full term. It is often defined as not conceiving after 12 months of regular sexual intercourse without the use of birth control measures.

CAUSES-

- Age- poor egg quality after 35 yrs.
- Unable to conceive
- Irregularity in ovulation.
- Blockage of fallopian tube
- Inadequate quantity of sperm
- Sluggish movement of sperm.

INCIDENCES- Male infertility & Female infertility are - 30%, Bilateral causes- 10%, Unknown aetiology- 25% & Others - 05%

CAUSES IN MALE -

These are common causes of infertility in men.

Semen and sperm-

- **Decreased sperm count-** man ejaculation has low number of sperm count. Sperm count below 15 million is considered as low. It is a common cause of infertility.
- **Low sperm mobility -** The sperm cannot reach the egg.
- **Abnormal sperm** – Due to an unusual shape sperm unable to move and fertilize an egg.

- **Abnormality of semen-** semen cannot carry the sperm effectively. Main causes may be –
- Due to the infection, carcinoma & surgery.
- **Higher temperature of testicles-** an undescended testicle, varicocele, varicose vein in the scrotum, wearing tight clothes & hot environments.
- **Difficulty in ejaculation** -blockage in ejaculatory ducts , semen may be ejaculate properly.
- **Imbalance hormonal action-** Hypogonadism can lead to a testosterone deficiency.
- **Retrograde ejaculation-** semen goes into the incorrect way as into the bladder.
- Other causes may include-
- **Genetic factors-** Klinefelter's syndrome abnormality in testicles , deficiency of testosterone & low/no sperm.
- **Mumps-** Testicles becomes inflamed& due to it affect sperm production.
- **Hypospadias-** The urethral opening is under the penis should be corrected in early life by surgical method.
- **Cystic fibrosis:** Sticky mucus formed mainly in the lungs but males may have obstruction in vas deferens. The vas deferens carries sperm from the epididymis to the ejaculatory duct and the urethra.
- **Radiation therapy** - Decrease sperm production.
- **Medications-** are as follows.

- **Sulfasalazine** - An anti-inflammatory drug used in the treatment of Crohn's disease & rheumatoid arthritis, decrease the sperm count. Sperm count return to the normal rate after withdrawal of drug.
- **Anabolic steroids**- Popular with body builders and athletes, long-term use can seriously reduce sperm count and mobility.
- **Drugs**– Prolonged use of marijuana, cocaine, cannabis, & excessive consumption of alcohol can lower the sperm count. These are also responsible for infertility in female.
- **Miscellaneous**- Anemia, Cushing's syndrome, diabetes mellitus & thyroid may be the cause of male infertility.
- **Stress**- Can reduced the sperm production & desire of sexual act..
- **Acetaminophen**- Oral administration during pregnancy decreased the testosterone.

CAUSES IN WOMEN-

Infertility in women have a wide range range of causes.

- Uterine septum
- Blockage in uterine tube
- Polycystic ovaries
- Fibroids
- Polyps
- Endometriosis
- Infections

RISK FACTORS-

- **AGE-** Chances of conceive fall around the age of 32 years.
- **SMOKING** - Smoking increases the risk of infertility in both men and women, Smoking during pregnancy also increases the chance of abortion.
- **ALCOHOL-** Alcohol consumption can affect the chances of conceiving.
- **OBESITY& EMACIATION** - Both are Causesof infertility in both. Hypercholesterol also a negative factor for fertility.
- **DIET-** Deficiency of folic acid, iron, zinc and vitamin B¹² can cause infertility.
- **EXERCISE** – Excessive and no exercise both can lead to infertility.
- **SEXUALLY TRANSMITTED DISEASES (STDs):** Infection of Chlamydia in female can harm to the fallopian tubes and inflammation in scrotum of male.
- **CHEMICALS-** Pesticides, insecticides, metals & lead can ba cause of infertility in both sexes.
- **STRESS** - It may be harmful in ovulation.

MEDICAL CONDITIONS-

Some medical conditions can affect fertility.

Ovulation disorders can be due to:

- **Premature ovarianfailure** - Ovaries become non functioningbefore the age of 40 years.
- **Polycystic ovary syndrome (PCOS)** - The ovaries doesn't function normally and no ovulation.

- **Hyperprolactinemia-** If prolactin is in higher level & the woman is not pregnant or breast feeding negative effect on both ovulation and fertility.
- **Poor egg quality-** The aged women are on the higher risk.
- **Thyroid disturbance** – Hypo or hyper thyroidism can lead to problem in fertility.
- **Chronic diseases** - AIDS, cancer, Problems in the uterus or fallopian tubes can prevent the movement of egg from the ovary to the uterus.
- **Surgery** - Pelvic surgery, cervical surgery can cause damage to the fallopian tubes.
- **Submucosal fibroids** - Tumors occur in the wall of the uterus. It can interfere with implantation or block the fallopian tube. Ultimately sperm is unable to fertilize the egg.

MEDICATIONS- Some drugs can affect fertility in a woman.

- **Non Steroidal Anti Inflammatory Drugs (NSAIDs)** - Continuous use of aspirin /ibuprofen for a longer time may decrease the chances of conceiving.
- **Chemotherapy** - Chemotherapy agents can result in ovarian failure.
- **Radiation therapy-** Adverse effect on fertility.

TYPES -

Infertility can be primary or secondary.

Primary infertility - when a couple fails to conceive after regular sexual intercourse without using birth control measures for at least 12 months.

Secondary infertility - when they have conceived in past but now not capable.

DIGNOSIS -

Most couple visit to gynecologist when fail to conceive after 1-2 yrs. With advancing the age as after 35 yrs of female earlier attention should pay for it since fertility rate decrease with age & tests of it takes longer time.

INFERTILITY TESTS IN MALE -

Careful investigation about the medical history, medications, and sexual habits along with physical examination. The testicles will be checked for lumps or deformities, and the shape and structure of the penis will be examined.

- Semen analysis - A sample of semen taken for the physical examination as sperm concentration, motility, color, quality & infections. For confirm the reading multiple samples can be taken.
- Blood test - Test for testosterone and other hormones level.
- Sonography - This may show obstruction in the ejaculatory & retrograde ejaculation.
- Chlamydia test - Chlamydia can affect fertility, by medicinal treatment it can be cure with antibiotics.

INFERTILITY TESTS FOR FEMALE -

A woman will be examined physically & her history about medications, menstruation cycle & frequency of sexual intercourse.

By the gynecologic examination & number of test will be performed as-

Laparoscopy involves inserting a thin tube with a camera on to investigate and possibly remove unwanted tissue.

- Blood test - To assess hormone levels & about the ovulating or not.
- Hysterosalpingography - After the fluid inserted into the uterus X-rays are taken to check fluid passes properly out of the uterus and into the fallopian tubes. If any blockage is found surgical procedure is necessary.
- Laparoscopy - To reveal the fallopian tubes, uterus & ovaries. This can expose the endometriosis, scarring, blockages & other condition of the uterus and fallopian tubes.
- Chlamydia test - which may require for antibiotic treatment.
- Thyroid Profile- It may alter the hormonal balance.
- Elisa & other tests for detecting TB - Infection of fallopian tubes & ovaries. ATT may be necessary if tests are positive.

TREATMENT-

Treatment depends on many factors as age of the patient, duration of the infertility & general health status.

Frequency of intercourse-

Sexual intercourse more frequently around the time of ovulation. Sperm usually survive inside the uterus for 4- 5 days & an egg can be fertilized for up to 1 day after ovulation.

TREATMENT FOR MALE -

- Erectile dysfunction or premature ejaculation - Medication, behavioral approaches & Counselling.
- Varicocele - Surgically treatment of a varicose vein in the scrotum.
- Blockage of the ejaculatory duct - Sperm can be taken directly from the testicles and injected into an egg in the laboratory.
- Retrograde ejaculation - Sperm can be taken directly from the bladder and injected into an egg in the laboratory.
- Surgery for epididymal blockage - A blocked epididymis can be corrected by surgically procedure.
- Electric or vibratory stimulation to achieve ejaculation- Due to spinal cord injury ejaculation is achieved with physical stimulation.
- Surgical sperm aspiration- The sperm is taken from the male reproductive tract such as the vas deferens, testicle&epididymis.

TREATMENT FOR FEMALE -

Prescription of fertility drugs to regulate / induce ovulation.

- Clomifene - This induced ovulation in those female who ovulate irregularly or not at all because of PCOS or other causes, It causes the more follicle stimulating hormone (FSH) & luteinizing hormone (LH) from the pituitary gland.
- Metformin - If Clomifene ineffective, metformin may be effective in women with PCOS, especially when linked to insulin resistance due to obesity (hyperinsulinemia)

- Human menopausal gonadotropin - This contains both FSH and LH. Patients who do not ovulate because of the defect of the pituitary gland may take this drug in the injectable form.
- Follicle stimulating hormone - This hormone is produced by the pituitary gland that regulates estrogen production by the ovaries. It stimulates the ovaries to mature egg follicles.
- Human chorionic gonadotropin - Used together with clomiphene, hMG, and FSH, this can stimulate the follicle to ovulate.
- Gonadotropin-releasing hormone (Gn-RH) analogs – may be helpful in women who ovulate prematurely earlier to the lead follicle is mature during hMG treatment. It provides a regular supply of Gn-RH to the pituitary gland which alters the production of hormone.
- Bromocriptine -This drug inhibits prolactin production. Prolactin stimulates milk production during breastfeeding. Outside pregnancy and lactation, women with high levels of prolactin may have irregular ovulation cycles and fertility problems.

SURGICAL PROCEDURE -

If the fallopian tubes are blocked, surgical procedure repair it & egg can be pass through.

Endometriosis- laparoscopic surgery. Surgeon remove the implants and scar tissue & this reduce pain and fertilization takes place.

Assisted conception

The following methods are currently in practice for assisted conception.

Intrauterine insemination (IUI) - At the time of ovulation with a fine catheter is inserted through the cervix into the uterus to collect the sperm directly into the uterus. sperm washed with chemical & the best specimens taken.

Commonly useful in the cases of low sperm count, erectile dysfunction, decreased sperm motility in the male or when infertility does not have an reasonable cause. It is also help if a man has severe erectile dysfunction.

In-vitro fertilization (IVF)– Sperm & unfertilized eggs placed in a petri dish, where fertilization can take place. The embryo is then placed in the uterus & pregnancy takes place. Embryo can be store in frozen state for the future.

Intracytoplasmic sperm Injection (ICSI) - A single sperm is injected into an egg to achieve fertilization during an IVF procedure. Fertilization improves markedly for man with low sperm count.

Sperm or egg donation- If necessary sperm or eggs can be received from a donor. Fertility treatment with donor eggs is usually done using IVF.

Assisted hatching: This may be useful if IVF has been failure, due to aged the membrane becomes hard & poor rate growth of embryo. An opening is made in the embryo this opening improves the ability of the embryo to implant into the uterus.

COMPLICATIONS -

Complications can be observed while treating infertility . If treatment took longer time it can lead to stress & depression. Beside it one other complication is as follows.

OVARIAN HYPERSTIMULATION SYNDROME (OHSS) -

Swollen ovary can leak excess fluid into the body & ultimately multiple follicles are formed. The small fluid sacs in which an egg develops. Ovarian hyperstimulation syndrome (OHSS) usually results from taking treatment with clomifene and gonadotrophins to stimulate the ovaries. It can be present after IVF. In severe cases OHSS can be fatal.

ECTOPIC PREGNANCY -

Fertilized egg implants outside the uterus, usually in a fallopian tube & if it stays there rupture of the fallopian tube can take place along with other complications. Immediate surgery is the only way but the tube on that side will be lost. Future pregnancy is possible with the other ovary and tube.

Women taking treatment of infertility will be on higher risk of an ectopic pregnancy. An sonography can detect earlier an ectopic pregnancy.

STHAULYA

AETIOLOGICAL FACTORS - Although in Ayurvedic texts the prakupit dosha is the namittik/ natural cause of obesity however four nidan/ aetiological factors are responsible for the development of obesity. These are as follows.

1. **Aharatmak-** related to diet as overeating, extra fatty diet in comparison to work or exercise.
2. **Viharatmak-** related to life style as sedentary life style or less or no exercise.
3. **Psychological-** related to psyche as stressful life style, hurry in each action, less sleep etc.
4. **Miscellaneous-** In the present day there are more causes of obesity as hormonal, endocrines etc.

In different texts of *Ayurveda* the aetiological factors/ *nidan* of obesity had been described as follows.

Charak Samhita-

Atisampurn- excessive take of calories, **Avyayam-** lack of physical exercise, **Beejswabhaw-** due to genetic of congenital cause, **Guru-** heavy diet, **Avyavaya-** lack of sexual act, **Madhur-** consumption of excessive sweet food articles, **Diwaswapna-** day sleep, **Sheet-** consumption of cold food articles, **Harsha-** happiness, **Snigdha** - consumption of sticky food, **Achintan** - minimum or less thoughts. In the above said causes related to faulty diets includes *atisampurna*, *guru*, *madhur*, *sheet* & *snigdha* & in faulty diets habits are *avyayam*, *diwaswapan*, *avyavay* & *achintan*. (Ch.Su.21/4)

Stress free life style & happiness are the symbol of mental satisfaction but excessive sleep, day sleep, lack of physical exercise are the indicators of devoids of physical exercise. All the above causes resultant minimum/ less body

calories & accumulation in the form of fatty acid & fat, ultimately origin of obesity. According to *Acharya Charak atisthauelaya/* obesity is a *santarpanjanya vyadhi* & causes/ aetiological factors for it are as follows *snigdha, madhur, guru, pichhil, navannam, navmadyam*, aquatic animals, milk & milk products, sweet & jaggary. (Ch. Su.23/3-4)

Shushrut Samhita- *Shleshmal ahar, adhyaasan* (Over eating or taking meal without complete digestion of prior taken food), lack of physical exercise & day sleeping are the chief causative agents of the obesity. (Su. Su. 15/37)

Ashtang Hridya- *Acharya Vagbhatta* had described special dietary causes as *shleshmal ahar, guruwadi* (heavy diet) & *ativrihngan* (excessive heaviness). A.H. Su.24/20-22.

Madhaw Nidan- *Acharya Madhaw* in the description of aetiological factors of obesity similar to *Acharya Charak* as *Shleshmal, madhur, sheet,snigdha, guru, pichhil* & in life style lack of exercise & day sleeping are the chief culprit for the development of obesity. M. Ni. 34/12

BhavPrakash- *Acharya Bhavmishra* in 39th chapter, *sthaulya adhikare, medoroga* related *nidan/aetiology* had been described as *shleshmaahar, madhurannam, snehdravyam* in the diet/*ahar*. While in *vihar/* life style *avyayam, divaswapan, tamogun bahulya mansik tushtimapi* & are the chief culprit for *Sthaulya*. (Bh.Pr. 39/1). *Tamogunbahulya* is the new among the causes, *Tama* is a *mansik dosh* responsible for the heaviness, *shrotoavrodh* (obstruction of the channels of circulation leading to the heaviness in the cellular level & ultimately the obesity).

Yogratnakar- In the chapter *medorog nidanam* in the *ahar / nidan sneh dravyam ie ghrita, tail, tikta raso medpravardhak ahar & Bhojnoprant jalsevan* is are the extra causative factors while in *vihar /lifestyle avyayam & divaswapan* are the main factors. (Y.R. 34).

Bhaisajya Ratnavali- In B.R. *nidan/ aetiological factors of obesity shleshmal*

ahar, divaswapan are harmful while prajagaran, mental & physical exercise etc are beneficial.

The comparative study of aetiological factors as according to different acharyas of Ayurveda are as follows.

Acharya Charak had clearly mentioned that Aharaj, viharaj(faulty life style) is the *naimmitij* / main cause however *beej swabhav* (genetical/hereditary) is the specific cause of obesity. Ch.Su.21/4

Table No. 1 DIETARY CAUSES

S.N.	Nidan	Ch.S.	Su.S.	As.Hr.	As.Sa.	Ma.Ni.	Bh.Pr.
1	Atisampurnam	+	—	—	+	—	—
2-	santarpan	+	—	+	+	—	—
3-	Guru ahar	+	—	—	+	—	—
4	Madhur ahar	+	—	+	—	—	+
5	Sheet ahar	+	—	—	—	—	—
6	Snigdha ahar	+	—	+	+	—	+
7	Shelshmal ahar	+	+	—	—	+	+
8	Navaann Sevan	+	—	—	—	—	—
9	Nav Madya Sevan	+	—	—	—	—	—
10	Graamyassevan	+	—	—	—	—	—
11	Audkarassevan	+	—	—	—	—	—
12	Mas sevan	+	—	+	+	—	—
13	Paya vikar	+	—	+	+	—	—
14	Sarpi	+	—	+	—	—	—
15	Dadhi	+	—	—	—	—	—
16	Ikshu vikar	+	—	+	—	—	—

17	Gud vikar	+	–	–	–	–	–
18	Shaali dhanya	+	–	–	–	–	–
19	Godhoom	+	–	–	–	–	–
20	Mash	+	–	–	–	–	–
21	Rasaayan sevan	+	–	–	–	–	–
22	Vrashya gravya sevan	+	–	–	–	–	–
23	Adhyashan	–	+	–	–	–	–
24	Bhojanottar jalpaan	–	–	–	+	–	+

POORV ROOPA / PRODRAMAL SYMPTOMS- The Symptoms which indicates the disease may be found in future is termed as Poorvaroop. “*Bhavivvyadhibodakmeva lingampoorvaroopam*”. In Shatkriyakal / six steps to perform treatment this condition poorvaroop comes or appears in Sthansansraya. In many texts the clear poorvroop are not explained clearly. How ever in some texts described accordance to *kaphvridhi* poorvroopa area as *Angshaithilya*/ weakness in body parts, *alasyam*, *gatsrad*, *madhurasyata* & *atinidraya*.

SYMPTOMS- “*Medmansativridhatwachhalsphigudar stan, aythopchyatsaho naroatisthul uchyte*” *ch.su.21/9*

According to *achrya Shushrut* – Due to faulty life style meda dhatu / fat increased in the body in the initial phase its accumulates in the peritoneum & progressively in the hip region, chest & other body parts too. On walking even the slow speed the hip, chest, abdomen & other parts where extra meda / fat get accumulate the visible movement of meda can be seen in that parts of body.

Role of *Rasadhatu* in the origin of *sthaulya*/obesity&*karshya*/ emaciation-

1.Dietray cause-

“Rasnimittamev sthaulyam karshyam ch , tatra shleshmalahar sevinoadhyashan sheelasya vyayammino diwaswapanratsya cham evannraso madhurtarasch sharirmanukramannati snehanmedo janyati, tadati sthaulymapdayati” Shu.su.15/31

In the origin of *sthaulya* / obesity & *karshya* / emaciation *rasadhatu* is the one most important/ single cause. Person consuming sticky/ *snigdh* (high calorie fatty diet), taking diet without complete digestion of prior taken food / *adhyashan*, performing no physical exercise, day sleeping in nature, in her/his body *aam annaras*/ undigested antigen the first & most important dhatu in our body nourishing the body & generates the fatty/ *meda dhatu*& ultimately causing the *sthaulya*/ obesity.

2.Vikriti of Agni-

As per Ayurveda physiology the all the metabolic activities in our body govern by the jatharagni, bhutagni & dhatwagni. Ingested food first of all digested by the jatharagni in the three stages namely madhuravastha pak, amlavastha pak & katuavastha pak. After that panchbutagni converts the macromolecules into the micromolecules, the digested food becomes absorbable *ahar rasa* / assimilation.Hence jathragni prepared food for making it fit for absorption & panchbhutagni nourishment of the parthivadi five elements in the body. In between *ahar rasa* after absorption goes into *ras rakta* circulation, from here nourishment of all the dhatus & entire body by the three theoris of poshan i.e. kedarikulyadi. Ch.ch.15/15-17, commentary by Chakrapanidutta.

In our body nourishment of all the seven dhatus in a sequence with the help of seven agnis of different dhatus as *rasagni*, *raktagni* & so on *Ch.ch.15/16-17*.

The growth / *vridhi* & lack/ *kshaya* of the dhatus dependes upon the part of agni/ *kayagni ansh* , if the *kayaagni* of earlier dhatu is decreased then increased in the next dhatu & if *kayagni* of earlier dhatu is increased then next dhtu will be lesser in amount then prior dhatu & so on. “ *Swasthansthsya kayagnersham dhatushu*

sanshrita, tesham sadati diptbhyam dhatuvradhi kshayodbhav purvo dhatu param kuryadvradh ksheensch tadwidham.” Ah.su.11/34



In sthaulya the vridhi of meda dhatu, its depends upon two conditions either the due to excess vridhi of mansa dhatu from ras & rakta & due to increased mans dhatu vridhi of medo dhatu, due to consumption of medo vardhak ahar & formed ahar ras with the help of medogni more meda dhatu produced. The incoordination of ras raktagni etc the ras raktagni dhatu will be decreased & vridhi of only medodhatu. In second condition the conversion, of medo dhatu into asthi, majja & shukra hampered & ultimately vridhi of medo dhatu takes place. Due to it patient suffers from asthi, sandhi shool & krachh vyavaya / difficulty in sex.

3. Shrotavrodha -

Avrat marg/ nirudh marg in the medorog concern is indicative of shrotoavrodh. Natural rasadhatu circulates in the different dhatus through ras samvahan/ circulation. The origin of aam due to jathragni mandata, causing the obstruction of chanells/ shrotoavrodh & hampered the functioning of agni. In the sthaulya person the due to saamrasa medovah shrotas & other dhatu obstruct ultimately only medovridhi takes place. As the result of medo vridhi meda, kapha obstruct the big chanells to. Due to the shrotoavrodh/ obstruction according to “Kumbhkar pavannyayen” pravardha vayu making the agni prdipt & vridh vayu make agnivaishamay. Progressively this cycle continue & complications of sthaulya as prameh pidika etc developed.

4. Beej dushti-

Beej swabhav clear cause explained by Acharya Charak, in this commentary

Acharya Chakrapani view that sthaulya person progeny will be sthaulya due to beej dushti.

This is clear from above description that the following four factors are responsible for the origin of sthaulya/ obesity.

1. Dietary cause / *Ahar*
2. Dearrangement of digestive enzymes/ *vikrati of jatharagni*
3. Obstruction in chanells of circulation / *shrotorodha*
4. Hereditary cause/ *Beejdushti*

Samprapti ghatak-

Dosh- *Tridosha (kledak kapha, saman, vyan & apan vayu & pachak pitta)*

Dushya- *Rasa & Meada*

Shroats - *Anna, Rasa, Mans & Medao vaha*

Shrotodushti – *Sang & vimarggaman*

Adhishtan- *Udar, Sphik, Stan & whole body.*

Agni- *Medodhatwagni mandata*

Udbhav sthan- *Aamashya*

Swabhav- *Chirkalik*

There are two types of *medodhatu* namely *Badhmeda* & *Abadhameda*. *Badhamedo* is present in *medodharakala*, *udar/pesitoneum*, *sphik / gluteal region*, *stanaya/ breast region*. This is the form of *medodhatu* known as *poshya medodhatu*. While the *abadhameda* circulates in all the body along with blood& plasma, the *poshakansh/* different lipids & cholesterol present in blood.

Table No. 2 SYMPTOMS OF STHAULYA

S.N.	Symptoms	Ch.S.	Su.S.	As.Hr.	As.Sa.	Ma.Ni.	Bh.Pr.
1.	Chal sfik	+	—	+	+	+	+
2.	Chal udar	+	—	+	+	+	+
3.	Chal stan	+	—	+	+	+	+
4.	Ayathaa upchay	+	—	—	+	+	+
5.	Udarpashvrvridhi	—	+	+	—	+	+
6.	Anutsaah	+	—	—	+	+	+
7.	Daubrallyam	+	—	—	+	—	—
8.	Aayushohras	+	—	—	+	—	+
9.	Krich vyavaayataa	+	—	—	—	—	—
10.	Daugrandhyam	+	—	—	+	+	+
11.	Swaydaabaadh	+	—	—	+	—	+
12.	Kshudatimatra	+	—	—	+	+	+
13.	Pipasatiyoga	+	—	—	+	+	+
14.	Saukumarta	+	+	—	—	—	—
15.	Sarkriyasuasamarth	—	+	—	—	+	+
16.	Alpapran	—	+	—	—	+	+
17.	Alpvyavaay	—	+	—	—	+	+
18.	Nidradhikyam	—	+	—	+	+	+
19.	Kshudrashwas	—	+	+	+	+	+
20.	Krithanam	—	+	—	—	+	+
21.	Gatrasad	—	+	—	—	+	+
22.	Gadgadatwam	—	+	—	+	—	—
23.	Aalasyam	—	—	—	—	+	—
24.	Javoprodha	+	—	—	+	—	—

25.	Alpvega	—	—	—	+	—	—
26.	Shram	—	—	—	+	—	—
27.	Alpbalam	—	—	—	+	—	—
28.	Moha	—	—	—	—	+	+

CHIKITSA - According to Ayurveda dosh vaishmya is the cause of disease, By modifying ahar vihar/ life style & medications can cure this disease.

Three parts of Chikitsa as

1. Nidean parivarjanam
2. Sanshodhan/ body purification &
3. Sanshaman

1.Nidan parivarjanam- is first sutra for the treatment of any disease

“*Sanksepte kriyayogo nidan parivarjanam*” su.ut.1/25 Hence sthaulya person should avoid all the sharirik & mansik causes of disease.

2.Sanshodhan- Bahya & Abhyantar

Bahya- suksham udvartan (dissolve the kapha, meda & destroy the bad odour, excessive sweating) , parishek, lepa & avgah etc

Abhyantar- ruksha niruh basti for lowering the kapha & meda. Raktmokshan, vaman & virechan.

3.Sanshaman- Langhan & rukshan karma

Saptovidha upakram- deepan, kshuda nigrahan, marutsevan, Vyayam, pachak aushadhi, trishna nigrah, aatap sevan As. Sa. Su. 24/9

Due to these three factors langhan is the only / most effective part of treatment i.e. amashyotha, santarpanjanya (over nourished) & rasaj vikar. Acharya Charak in the sutra sthan ch. 22/28, described ten types of langhan, *Chutsprakar sanshudhi*

pipasa marutatapo, pachnanya upvasasch vyayamscheti langhanam.”

“Guru chaptarpanam chestam stulanam karshanamprati, Vataghnanaannpanani shleshm medoharani ch.” ch.su.21/20-21

According to Chakrpani the teekshnata of jathragni can be cured with the help of guru gun aahar & by the aptarpan process meda dhatu will be absorbed/ avshoshit.

Acharya Charak described *guduchi, triphala, takrarishta, makshik, vidanadi lauh, bilvadi panchmula, shilajeet with agnimanth swaras. Ch.su. 21/22-24, Lekhaniya mahakashaya gana, gavedhuk karshan yavagu, vibhitak, venu, yava & madudak.*

Acharya Shushrut described *virukshan, chedniya dravya of katu, tikta & kashay ras predominant dravya as shilajeet, gomutra, guggulu, triphala, lauh raj & madhu. Su.Su. 15/38, Amalki, tripusis, kansy, hareetiki, karpurdescribed in the treatment of sthauilya.*

Acharya Dalhan- described *virukshniya, medonashak, chhedniya, shrotoshodhak varunadi, shalsaradi, rodhradi, arkadi, mushkkadi & ushakadi gana in the ch. 38, sutrasthan.*

Acharya Charak described as, a very broad spectrum view for the management of not only for the sthauilya but also for the treatment of number of reast of santarpanjanya/ over nourished diseases – **“Vyayam nityo jeernanshi yavgodhumbhojan, santarpankriterdoshe sthauilya muktarva vimuchyete.”** Ch.su.23/25

1.Daily aerobic exercise

2. Taking the food after the complete digestion of the prior taken food

3. food should be oat, barely, wheat with the whole bran/ husk. By the practising these three sutra, one can comptetly free from sthauilya& all the Santarpan janya vyadhis.

Ashtang Hridaya- described *Gomutra, Gomutra paki hareetiki, navak guggulu,*

rodhrasav, amrita guggulu & vradhman bhallatak. As.Hr.ch. 8/55-56,12/27,21/50, As.Hr. Ut. 28/38

Ashtang Sangrah- described *tutha, manah shila, samuderphen, anjan shilajeet, madanphal churna, kutajadi churna, vidangadi manth. But guggulu & rasanjan thought to be the best in the treatment of sthaulya. Ash.san.su.12/22-24, su. 16/17, su.24/37-46.*

Bhav parkash- described *Chavyadi saktu, triphala churna, erandpatra kshar, badripatra peya, amritadi guggulu, lauh rasayan & lauharishta. Bh.Pr. 39/15-27, 39/3, 39/41-46*

Bhaisjyaratnavali - *Vyoshadi sattv, sthauilyhari peya, vidangadi churna, amritadi guggulu, navak guggulu, lauh rasayan, vadvagni lauh & ras, harital yog, lauharishta & mahasugandhi tai.*

Table No. 3 PATHYA AHAR

S. N.	Pathya	Ch.Sa	Su.Sa	As.hr	Bh.Pr	Y.r	Bh.r
1	Prashantika	+	—	—	—	—	—
2	Priyangu	+	—	—	—	—	+
3	Shyamak	+	+	+	+	—	+
4	Yava	+	+	+	+	+	+
5	Yavak	+	—	—	—	—	—
6	Jurn(jonhari)	+	—	+	—	—	—
7	Kodrav	+	+	—	+	+	+
1	Mudga	+	+	+	+	+	+
2	Kulath	+	—	+	+	+	+
3	Chakr mudga	+	—	—	—	—	—
4	Makushthak	+	—	—	—	—	—

S. N.	Pathya	Ch.Sa	Su.Sa	As.hr	Bh.Pr	Y.r	Bh.r
5	Aadhaki	+	—	—	—	—	—
6	Patol	+	—	—	—	—	—
7	Aamlaki	+	—	—	—	—	—
8	Madhudak	+	—	+	—	—	—
9	Rohit matsy	+	—	—	—	—	—
10	Jungle mans	+	+	+	+	+	—
11	Shar	+	—	—	+	—	—
12	Udyalak	—	+	—	—	—	—
13	Madhu	—	+	—	+	—	+
14	Vyayam	—	+	—	—	—	—
15	Mekhan basti	—	+	—	—	+	—
16	Rukshaan	—	+	—	—	—	—
17	Laja	—	—	+	+	+	+
18	Arisht	+	—	+	—	—	—
19	Mastu	—	—	+	—	—	—
20	Jagran	—	—	+	+	—	+
21	Chinta	—	—	+	+	—	+
22	Shodhan	—	—	+	—	—	—
23	Puran shali	—	—	—	+	+	+
24	Vrintak	—	—	—	+	+	—
25	Bimbi	—	—	—	+	+	—
26	Kanji	—	—	—	+	—	—
27	Shram	—	—	—	+	—	—
28	Vyavay	—	—	—	+	—	+
29	Yan bharman	—	—	—	+	—	+

S. N.	Pathya	Ch.Sa	Su.Sa	As.hr	Bh.Pr	Y.r	Bh.r
30	Aptarpan	—	—	—	+	—	+
31	Nishakale ushnaudak pan	—	—	—	+	—	+
32	Shaktu	—	—	—	+	+	—
33	Jeerne bhojan	—	—	—	+	+	—
34	Aadrak	—	—	—	+	—	—
35	Tambul	—	—	—	—	+	—
36	Nivar	—	—	—	—	+	—
37	Chanak	—	—	—	—	+	—
38	Masoor	—	—	—	—	+	—
39	Vritak	—	—	—	—	+	—
40	Patra shak	—	—	—	—	+	—
41	Takra	—	—	—	—	+	—
42-	Sura	—	—	—	—	+	—
43	Sarshap tail	—	—	—	—	+	—
44	Til tail	—	—	—	—	+	—
45	Ushnodak	—	—	—	—	+	—
46	Chingat matasya	—	—	—	—	+	—
47	Agaru lepa	—	—	—	—	—	+
48	Udvartan	—	—	—	—	—	+
49	Atap	—	—	—	—	—	+
50	Vaman	—	—	—	—	—	+
51	Virechan	—	—	—	—	—	+
52	Langhan	—	—	—	—	—	+
53	Pragbhojan variyan	—	—	—	—	—	+
54	Katu,tikta, kashay	—	—	—	—	—	+

S. N.	Pathya	Ch.Sa	Su.Sa	As.hr	Bh.Pr	Y.r	Bh.r
55	Guggulu	—	—	—	—	—	+
56	Ayas	—	—	—	—	—	+
57	Shilajeet	—	—	—	—	—	+
58	Trikatu	—	—	—	—	—	+
59	Triphala	—	—	—	—	—	+

OBESITY-

Definition- Obesity is a chronic condition characterized by an excess amount of body fat. Normal amount of body fat is necessary in our body for the different purposes as storing energy, heat insulation, shock absorption & many other functions.

Body Mass Index (BMI) ideally defines the obesity. Height and weight of the person determines his / her body mass index. The body mass index (BMI) equals a person's weight in kilograms (kg) divided by their height in meters (m)². Since BMI describes body weight relative to height, hence there is a direct correlation with total body fat content. An adult who has a BMI in between 25-29.9 is considered as overweight while BMI, more than 30 in an adult body, is declared as obese. A person having BMI in the range 18.5-24.9 has a normal body weight. More than 40 BMI will be considered as morbid obesity.

EPIDEMIOLOGY - Now a days Obesity has been declared as an epidemic globally. Its due to increasing the number of obese persons rapidly. Approximately 60% of adults are either overweight or obese. The prevalence of

obesity in children has been increasing remarkably. The incidences of obesity approximately double in last decades world wide.

HARMFUL EFFECTS OF OBESITY ON HEALTH -

1. Risk of Cancer- Obesity is a risk factor for different cancers as cancer of colon in men & women, cancer of the rectum and prostate in men, While cancer of the gall bladder, breast cancer & uterus in female. Excessive fat in the body directly increase the production of estrogen & high levels of estrogen increases the risk of breast cancer.

2. Insulin resistance – An important cause of insulin resistance is obesity. Initially the pancreas responds to insulin resistance by increase the formation of more insulin. Normal blood glucose level & high insulin level. As time passes pancreas stop to produce excessive insulin & then increase the blood glucose level. Hence insulin resistance is a pre diabetic state.

3. Diabetes mellitus- The risk of diabetes mellitus increase with the apple shaped obesity / male type obesity. This condition is known as metabolic syndrome, in which diabetes, hypertension & dyslipidaemia are included.

4. Hypertension- Hypertension included in metabolic syndrome & risk of hypertension increase with the obesity.

5. Dyslipidaemia- Obesity induced dyslipidaemia & increase the risk of heart disease.

6. Stroke / CVA– Diabetes mellitus & hypertension are two major risk factor for brain hamorrhage/ CVA.

7. Heart attack – Persistent hypertension & dyslipidaemia enough to cause heart attack & other related disease.

8. Congestive heart failure - Continuous hypertension without the suitable treatment along with other risk factor as alcohol consumption induce the dilated cardiomyopathy (DCM). Hypertension cause Lt. Ventricular hypertrophy/ failure progressively RVH & ultimately CHf.

9.10. 11 & 12. Gallstones, Gouty arthritis, Osteoarthritis & Varicose veins - These four conditions are common complications of gynecoid/ pear shaped obesity. Excessive fat intake, bile salts are unable to emulsified it & incidences of cholelithiasis increase. Estrogen hormone also play a major role to develop it in females of 40-50 yrs age group.

13. Impotency & Difficulty in sexual intercourse – Its clear from many studies that obesity is a major cause of infertility & creates difficulty in sex performance too.

14. Unable to perform physical exercise – Due to excessive body fat & weight the work load on heart will increase, less perfusion to the body parts specially heart, kidney & brain ultimately causing the difficulty in many physical exercise. If person also suffering from hypertension, diabetes then condition will be more serious.

15. Hiatus hernia- Increase the fat in peritoneum induce the chances of hiatus hernia along with Gastro Esophageal Reflux Disease (GERD).

16.17& 18. Decrease the longevity, Lack of joy & Sleep apnea – these are also associated symptoms due to obesity.

CAUSES -

Obesity is the result of genetics, life style, metabolism, environment & behavior.

GENETICS - A person is more likely to develop obesity if one or both parents are obese. Genetics also affect hormones involved in fat regulation. **DIET** - Diet is the main culprit for the obesity. Faulty dietary intake, excessive food intake, eating without the digestion of prior food taken are responsible for obesity. Excessive fatty diet, rich in carbohydrates, junk food, different soft drinks have high sugar content, for the digestion of these more insulin required regularly. On prolonged course of time insulin resistance developed. This higher insulin release & resistance may precipitate the obesity as observed in many studies.

PHYSICAL INACTIVITY – There is a strong relationship in between the ignorance of physical exercise & obesity since persons who perform sedentary life style spent low energy. Exercise increase the uptake of glucose without the need of insulin.

MEDICINES & HORMONES - Medications associated with weight gain include certain antidepressants, anticonvulsants as carbamazepine & valproate some anti diabetes medicines insulin, sulfonylureas, corticosteroids used in many diseases some hormones as oral contraceptives. Antihypertensive drugs as Calcium channel blocker (CCB), antihistamines can cause weight gain.

PHYSIOLOGICAL - Some physiological factors as stress, emotional upset, anger & depression impact on dietary pattern. Most of them eat excessive food & ultimately weight gain.

DISEASES - Some diseases as hypothyroidism, insulin resistance, polycystic ovary syndrome & Cushing's syndrome are also culprit for obesity.

RACIAL IMPACT – Some races as south asian countries India, Srilanka, Pakistan, Bangladesh tendency to become obese due to genetic factor.

CHILDWOOD OBESITY - Due to bad habits of eating in our developing or developed society from child wood had been emerged a major cause of obesity. The second issue is lack of appropriate physical exercise. Burden of school bags also aggarevates this condition.

MEASUREMENT OF BODY FAT -

BODY MASS INDEX (BMI)- BMI of a person calculated by weight in kilograms divided by height in meters square ($BMI = \text{kg/m}^2$).

The World Health Organization had classified system using the BMI to define overweight and obesity.

- BMI ranges 25 to 29.9 is considered as pre obese condition.
- BMI ranges 30 to 34.99 is defined as obese class I
- BMI ranges 35 to 39.99 is defined as obese class II.
- BMI equal to or more than 40.00 is defined as severe obesity.

SKIN CALIPERS - Measurement of the layer of fat just beneath the skin in several parts of the body with the help of callipers, the results are used to calculate the body fat percentage.

Bioelectric Impedance Analysis (BIA)- On standing on a special scale with footpad. A harmless amount of electrical current is sent through the body & % of body fat is calculated. Different electrodes placed in wrist, elbow & waist, the difference of voltage noticed to calculate the body fat. Examiner performing the test should be skilled & well trained.

MANAGEMENT -

1. PHYSICAL EXERCISE -

Physical exercise & active life style help in burning of calories. The calorie burned amount depends on the type, duration, and intensity of the exercise & weight of the person . But exercise alone without dietary modifications will have a little effect on weight.

Exercise has folloing benefits for health -

- Improved control of blood sugar & insulin sensitivity.
- Decreased triglyceride levels and raised the HDL cholesterol levels, good chplestrol.
- Decrease blood pressure.
- Reduced body fat
- Decreased the risk of heart disease
- Maintane strength & power of body .
- Increase the release of endorphins, people feel good.

General exercise recommendations-

- Regular 45 minutes moderate exercise at least five days a week but preferably daily. These may becycling, brisk walking, jogging, swimming, playing badminton & tennis etc according to the choice. Open, fresh air exercise is more beneficial in comparison to closed areas as fixed bicycling & treadmeal jogging.
- Exercisemaybe in smaller as 10-15 minutes sssion to avoid fatigue& injury.

PRECAUTION IN EXERCISE – Some precautions for the following persons as they should consult their physician before moderate to heavy exercise.

- Aged person 40+ years.
- Having any diseases as Diabetes, Hypertension, Heart disease, Dyslipidaemia, Bronchial asthma, Anaemia, Osteoarthritis & Slip disc etc.
- Habits of alcohol consumption, smoking etc.

2. DIETARY HABIT -

The chief target of changes in diet pattern to prevent the excess weight gain. Follow the genuine ways to prevent weight gain. In most of the persons it is difficult to maintain ideal weight / BMI (20-25) within the range. Thus it is higher when a goal is set to lose 10% -15% of body weight. It is also true that reduction in the weight of an obese person will show many positive changes on health. The most effective option to lose the weight, to take lesser calories. Most of adult person requires 1200- 2500 calories per day depending on the physical activity.

The higher the initial weight of a person the more quickly lose the weight. As we know that approximately 22 calories are required for the maintenance of every 1 kg of body weight. Hence if a woman having weight 100 kg then her requirement of calories will be about 2200 calories / day for the maintenance of her healthy status, in the same pattern if a person has 60 kg body weight he will require approximately 1320 calories in a day. If both take a calorie-restricted diet of 1200 calories per day then woman would lose weight faster as compared to the male. In calorie expenditure the age is also a deciding factor. As we become

older our metabolic rate will decrease & this is the reason that its difficult to loose weight by an elder person.

This is a myth regarding the low carbohydrates diet & weight loss, if a person start to take low carbohydrate diet initially he will lose the weight due to fluid loss not the low carbohydrate diet & he can regain weight on taking carbohydrate rich diet.

To avoid the malnutrition condition duering long term weight loose programme one should take the balanced & less calories diet otherwise deficiency of vitamins & micronutrient will be observed.

Take more quantity of low energy nutritious foods contain relatively lesser amount of calories as compared to the big amount. These may be green & leafy vegetables, seasonal fruits, roasted meat, fish, buttermilk, salad, whole grains & beans. Avoid high energy fatty & sweet foods. They have a high amount of calorie even in a small amount of food. Now a days recommendation for a healthy normal person to consume diet which have fat less than 30% . Fat contains 9.4 calories /gm while protein & carbohydrates provides 4.2 calories /gm. Some high energy food articles are red meat, egg yolk, fried foods, high fatty/sugar based fast foods, sweets, pastries, chocolates, cakes, coffee & butter. Alcohol, soft drinks & high calories packed snacks provide calories but very low nutrition value.

Complex carbohydrates such as brown rice, whole grain bread, fruits, green vegetables, should be more in amount. While simple carbohydrates such as sugars, sweets, chocolates, pastry, cakes & muffins should be less as much as possible. Simple carbohydrates cause excessive insulin release by the pancreas and insulin is necessary for glucose metabolism. Consult your physician & dietician about the daily diet chart & nutritive value of foods percribed.

3. MEDICATIONS -

In the presence of health risks related to obesity medicinal treatment should be prescribed. In patients with BMI more than 30 or BMI more than 27 + other risk factors as diabetes, hypertension etc is also present. Medications should only be used as an adjunct with diet modifications and an exercise program. Total weight loss 10-15% of the initial weight & one can regain weight on withdrawal of medications of weight loss.

PHENTERMINE -

Phentermine suppresses appetite by causing a release of norepinephrine in the body. Phentermine alone is still available for treatment of obesity.

Side Effects -headache, insomnia, irritability, and nervousness.

Fenfluramine and dexfenfluramine suppress appetite, but may be harmful for valvular heart disease patient.

ORLISTAT -

Modification of the metabolism of fat. This anti-obesity drugs termed as lipase inhibitors or fat blockers. By inhibiting the action of lipase enzymes, orlistat reduced the absorption of fat from intestine upto 30%. It have almost no systemic side effects since acts on lumen. Only change the bowel movement.

Precaution for diabetics or taking blood clotting drugs.

Person taking orlistat for longer period should take vitamin supplements since it hampers the fat soluble vitamins A, D, E & K.

LORCASERIN -

This drug controlling appetite through serotonin activation. Mostly patients using it. **Side effects** – headache, dizziness & fatigue. Hypoglycaemia in patient of diabetes also noticed.

TOPIRAMATE -

Latest medicine for the treatment of weight loss. It is a combination of phentermine and extended-release topiramate. 5-10 % weight loss have been reported with it.

Side effects –birth defects if pregnancy present. Include tachycardia, glaucoma, suicidal tendency & hypoglycaemia taken by diabetic patients.

NALTREXONE -

This is a combination of naltrexone an opioid antagonist and bupropion hydrochloride an antidepressant medicine, is a reuptake inhibitor of dopamine & norepinephrine.

Side effects- nausea, constipation & headaches. The medication is contraindicated in patients with severe hypertension or patient of epilepsy.

LIRAGLUTIDE -

Weight loss drug in combination with physical activity and diet modifications as all drugs of this group. It administered injectable once a day, resembles a hormone that control digestion & appetite Glucagon Like Peptide-1 & also used in treatment of diabetes-2. It activates areas of the brain involved in appetite regulation.

MEAL SUBSTITUTE – May be effective for the weight loose purpose.

SUBSTITUTES OF SUGAR -

Saccharin & aspartame are sugar substitutes that provide little or no calories.. Using saccharin instead of 10 gm of sugar decrease the 35 calories from the diet. Person with phenylketonuria should not use aspartame because it contains phenylalanine. Fructose, sorbitol & xylitol may be used as alternatives to sugar, but they provide more calories than saccharin and aspartame. Diarrhoea is the side effect of sorbitol, if taken in large amount.

OTC weight-loss products-

Weight-loss products contain herbal laxatives as Senna, cascara sagrada & diuretics Rhamnus purshiana that cause diarrhea, cause loss of water from the body. Loss of sodium and potassium can lead to dehydration. However temporarily weight loose due to loss of fluid. Low sodium and potassium levels may cause abnormal arrhythmia & even death as a resultant.

4. SURGERY IN THE TREATMENT OF OBESITY -

The Indications of Bariatric Surgery are as follows -

- Patients with BMI more than 40, severe obesity
- Patients with BMI of greater than 35 who have serious medical problems such as sleep apnea that would improve with weight loss

Restrictive surgeries - Restrict the size of the stomach & decrease the rate of digestion.

Malabsorptive/ restrictive surgeries - restrict the size of the stomach but also bypass or remove part of GIT to decrease absorption of food.

Obesity is a chronic condition. If it is viewed as a temporary problem that can be treated for a few months with a strenuous diet. However as most overweight people know, weight control must be considered a lifelong effort. To be safe and effective any weight-loss program must be planned for the long-term approach or else the program is largely a waste of time, money, and energy.

CONCLUSION -

- For the maintenance of ideal body weight is a balance in between food consumption and calories expenditure by the body .
- The types & total amounts of food eaten decide your ability to maintain ideal weight & to lose weight.
- Weight loss programme should be designed for a longer time.
- Weight loss programme should be in the guidance of a well qualified team of physician, dietician & physiotherapist.
- Avoiding the regain of weight on stop of weight loss programme.

RECOMMADATIONS -

- Eat a variety of foods.
- Balance in between food taken & physical activity for maintain body weight.
- Diet with plenty of grain products, vegetables & seasonal fruits.
- Diet should low in saturated fat, and cholesterol.
- Sugars should be moderate in diet.
- Choose a diet moderate in salt and sodium.

HRIDYA ROG

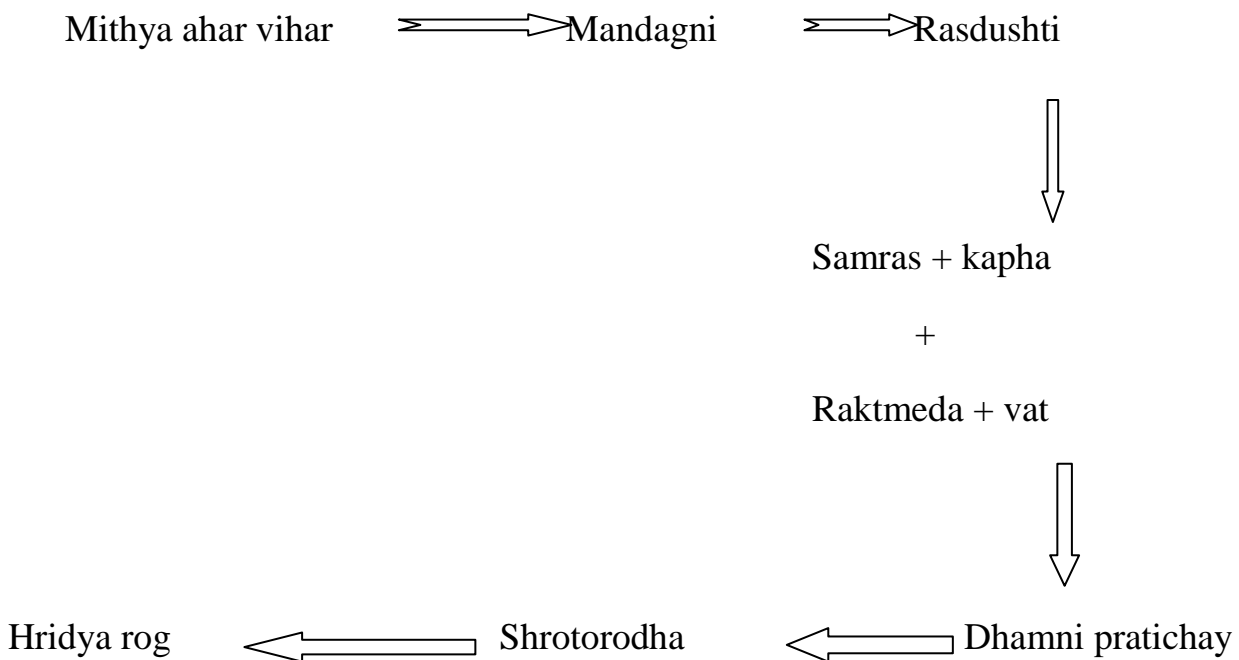
In the origin or development of Cardiac diseases the role of rasa dhatu / dyslipidaemia can be understood with the help of Ayurveda as well modern system of medicine.

Nidan/aetiological factors- “*Atushan gurwanna kashay tikta shramabhigata tadyashan prasangye, Sachintanervegavidharanesch hridyaamaya panchvidh pradisht.*”

Acharya Shushrut in the uttarsthan chapter 44 th had been clearly maintained the role of rasa dhatu in the disease origin.

“*Dushyitwa rasam dosha viguna hridayam gata, hrid badham pkurvanti hridrogam ch prachakshate.*” Su. Ut. 44/3

Hridyaroga Samprapti-



Samprapti Ghatak-

Dosha- Vat predominant

Dushya- Meda, rasa

Adhisthan- Hridya

Shrotas- Rasa vaha

SYMPTOMS - “*Vaivarnya murchha jwarkas hikka shwasasyavairasya trisha pramoha chhrdi kaphotklesharujoaruchish hridrogja survividhastaanye.*”

Ch. Ch. 26/78

Updrva/ Complication- “*Klam saado bhram shosho geyateshamupdrva*”

Klam- Easy fatigue , *Saado-* Depression, *Bhram-* Giddiness & *Shosho-* Consumption are the main complications of hridya roga.

Hridya is the site of *Chetna* / concious & *man/* psyche hence stupar, inconciousness, comma are the common . Increase in Blood pressure due to *Dhamni partichay* / Arteriosclerosis, Heart is the seat of *Saadhak pitta* – maintane the ego, hridya is the main site of oaj, as a result of oajo kshaya decreased yhe immunity/ vyadhiksamatwa or even death take place, Avlambak kaph-hridshunya , Pran vayu- Dyspnea , Shrotomula of pranvaha shrotas & rasa vaha shrotas – Dyspnea , Paedal oedema & Palpitation are the chief complications.

Arishta Lakshan/ Prognostic signs- *Staimitya-* Cold & Calmy skin, *Aayataksha-* Dialated pupils, *Teevraurograh-*Svere retrosternal chest pain.

MANAGEMENT

1.Nidan parivarjan- *Avoiding causative factors*

2. Vishram- *complete bed rest*

3. Sansaman Chikitsa- *medicinal treatment*

4. Sanshodhan Chikitsa- *Purification of body through panchkarma*

Shanshaman Chikitsa- Single drugs are Arjun as swaras , Churna , ksheerpak, Nagbala churna, kakubhadi churna. Pathadi churna, hinuugragandhadi churna, hinguadi churna, pushkarmuladi churna, hariitikyadi churna, krishnadi churna, pipliyadi churna, suksmaeladi churna, vaishwanar churna & trivrittadi churna.

Vati- Prabhakar, navak guggulu, pushkar Brahmi

Bhasma- Mrigshring , hridyaarnav ras, rajatvidrum yoga, mukta pishiti, chintamani rasa, akeek pishti, parwal Panchamrit, sangeyashav pishti, mukta bhasm, sidhmakardwaj, yogender rasa, hridrogratnakar.

Ashav & Arishta- dashmularishta, arjunadyarirsha, saraswatarishta.

HEART DISEASE

Heart disease is a term covering any disease of the heart itself. While cardiovascular disease, describes diseases of the blood vessels and circulatory system as well as the heart.

Heart disease is the chief cause of death.

Types- There are many types of heart disease which affect different parts of the heart & have different ways of presentation.

Congenital heart disease- This is a general term for some abnormality of the heart & its valves, almost present since birth. The term congenital heart disease covers a range of conditions but the general symptoms include - sweating, excessive & easily fatigability fast heart rate & respiratory rates, breathlessness, chest pain, blueness of skin due to cyanosis & clubbing of nail beds.

These are as follows

- **Ventricular Septal defects (VSD)** - There is a hole between the two chambers of the heart.
- **Obstruction defects** - The blood flow through the each chambers of the heart is partially / completely obstructed.
- **Cyanotic heart disease** - A defect in the heart causes a shortage of oxygen supply to the entire body.
- **Arrhythmia-** Arrhythmia refers to an irregularity in the heart beat. There are many presentations in which a heart may lose its regular rhythm. premature ventricular contractions, additional & abnormal beats.

These are -

- **Tachycardia**- Heart rate is fast more than 100 beats/minute.
- **Bradycardia** - Heart rate is slow less than 60 beats/ minute.
- **Atrial fibrillation & flutter** - when the heart beat is irregular & fast upto 200-250 beats/minute.

Arrhythmias finds when the electrical impulses in the heart originates by SA node in atrium, send the impulse to the AV node & bundle of Purkinje fibers. Normally heart coordinates this impulse properly. In arrhythmias the heart beats are irregular may be fast, slow or not in rhythm. Arrhythmias may be fatal.

Coronary artery disease- The coronary arteries supply the heart muscle with nutrients and oxygen by circulating blood. Coronary arteries can become diseased or damaged, usually because of plaque deposits that contain cholesterol. Plaque buildup narrows the coronary arteries, and this causes the heart to receive less oxygen and nutrients.

Dilated Cardiomyopathy (DCM)-

The heart chambers become due to heart muscle weakness and cannot pump blood properly. The most common cause is that inadequate oxygen supply to the heart muscle, due to coronary artery disease.

Myocardial infarction (MI) -

Heart attack, cardiac infarction & coronary thrombosis. An interrupted blood flow damages or destroys the affected heart muscle. This is usually caused by a clot /infarct

formed in any coronary arteries and it may occur as a result of suddenly narrowing & spasm of arteries.

Heart failure (CHF)-

Congestive heart failure it occurs when the heart fails to pump blood efficiently. Any left / right side of the heart might be affected. Both sides may become failing. Coronary artery disease (CAD) & hypertension are the main culprit causing the heart too hard / weak to pump properly.

Hypertrophic cardiomyopathy- This is a genetic disorder in which the wall of the left ventricle become thickened, harder & blood can not pump out of the heart. This is the major cause of sudden death in athletes & sports persons.

Mitral regurgitation- Mitral valve regurgitation, mitral insufficiency, mitral incompetence, this have similar meaning. It occur when the mitral valve does not close properly. This allows back flow of blood into the heart when it should go out. Due to it blood cannot move through the heart efficiently.

Mitral valve prolapsed- The valve between the left atrium and left ventricle does not close properly, it bulges upwards or back into the atrium. In most of the cases this condition is not life-threatening & no specific treatment is required. In some patients, if the condition is coexist with mitral regurgitation may require treatment.

Pulmonary Stenosis- Due to the tightness of pulmonary valve difficulty for the heart in pumping the blood from the right ventricle into the pulmonary artery. The right ventricle has to work hard to overcome the condition. An infant with severe stenosis

can turn blue due to insufficient blood supply. While in Older children age group generally no symptoms appear.

The symptoms of a heart attack can mimic indigestion. Heartburn, GERD, APD, Peptic ulcer & gastritis, feeling of heaviness in the chest. Other symptoms of a heart attack may be severe retrosternal chest pain that travels from the chest to the left arms, neck, back, upper part of abdomen & jaw. Lightheadedness, giddiness, profuse sweating, nausea associated with vomiting. Dyspnoea can occur when the heart becomes weak to circulate the blood.

CAUSES - Multiple causes may be as damage partial/total of heart. Damage to the coronary arteries or poor supply of oxygen to the heart itself. Some types of heart disease, such as hypertrophic cardiomyopathy, are genetic. There are so many causes related to faulty life style that can increase the risk of heart disease. These are hypertension, dyslipidaemia, smoking, obesity, diabetes, family history of any cardiac diseases, junk food & fatty diet, age, sedentary nature of job & anxiety & stressful life style having any of these risk factors markedly increases the risk of heart disease. Some such as age & hereditary are unavoidable.

TREATMENT - According to the particular disease. Mostly diseases can cure through the medicines. While some diseases can be corrected with the help of surgical procedures.

MEDICATIONS – Very large groups of advance medicines are available at present for the treatment of different cardiac diseases.

The main medications used in the treatment of heart diseases are -

- **Statins** - correction of dyslipidaemia.

- **Aspirin, clopidogrel, warfarin, low molecular weight heparin-** preventing & to treat the infarct & clott.
- **Sorbitrate & Nitroglycerine** – in the treatment of coronary artery diseases, ischaemia & angina pectoris.
- **Beta-blockers**–in the treatment of arrhythmias, atrial flutter, fibrillation, heart attack, heart failure & hypertension.
- **Verapamil** – for the treatment of Proxysmal Supra ventricular Trachycardia ((PSVT), Ventricular trachycardia (VT) & angina.
- **Angiotensin converting enzyme (ACE)-** inhibitors, for heart failure and hypertension
- **Calcium channel blocker (CCB) & diuretics**-in the treatment of hypertension.
- **Digoxin** – for the treatment of CHF.

HRIDSHOOL

Rasa dhatu vikriti plays an important role in the origin of angina pectoris / hridshool.

“Kaphpittavrudhastu maruto rasa murchhit, hridasth badha kurute shoolmuchhavasaro dhkam param. Sa hridchholam iti khyato rasmarutsambhava”.
Su.ut. 42/131

Samprapti ghatak-

Dosha- Tridosha, vat predominant.

Dushya- Rasa

Adhishthan- Hridya

Shrotodushti- sanga

TREATMENT-

1. abharak bhasma 250mg +shring bhasma 1gm + vrihat kastooribhairav rasa 250 mg +, hridayarnav rasa 500mg. 2. Arjun churna 2gm bd with honey. 3. Arjunarishta + sarshwatarishta 50ml H S.

ANGINA PECTORIS

Angina is a type of chest pain that results from reduced blood flow to the heart muscles. Reduction in blood flow means that heart muscle not getting adequate oxygen supply & they crying for it. The pain may be induced by heavy physical exertion & sudden emotional upset.

Stable angina, also known as angina pectoris, is the most common type of angina. Stable angina is a predictable pattern of chest pain. Patient can usually realize the pattern of chest pain. Identification of angina pectoris can help treat the symptoms promptly & easily.

Unstable angina is the other form of angina. It occurs suddenly and become grave with the time passes. It may eventually lead to a myocardial infarction, commonly known as heart attack.

Though stable angina is less serious than unstable angina, it can be painful and uncomfortable. Both types of angina are usually signs of an underlying heart condition & are very serious even may be life threatening some times if delay

in the treatment , hence its important to consult doctor as soon as possible as one felt symptoms above said.

CAUSES &RISK FACTORS -

Obesity, history of heart disease, family history of any heart diseases, high bad cholesterol, hypertension, diabetes, smoking, sedentary life style, large meals at one time instead of divided meals, vigorous physical workouts, excessive stressful working conditions & sudden exposure to cold atmosphere can also aggravate angina.

PRESENTATION -

Stable angina present when the cardiac muscles do not receive the proper supply of oxygen needs for proper function. There is a load on heart at the time of strenuous exercise & in presence of atherosclerosis hence more oxygen required in these conditions. In the presence of plaque arteries can become narrow and hard. Blood clots can also hamper the flow of oxygen rich blood to the heart.

SYMPTOMS –

Different types of sensation of pain as tearing, cutting, heaviness, tightness, squeezing, stone placed on chest, that occurs during an attack of stable angina. This pain may spread from chest to neck, left arm, shoulders, epigastrium, jaws, shortness of breath & dyspnoea, nausea, fatigue, giddiness, profuse sweating & feeling of death. Stable angina usually happens after heavy exertion physically or serious emotional disturbances. The symptoms may vary in duration from few seconds to 10-15 minutes, in majority of cases. While in the unstable angina, the pain may be continuous and more severe.

DIAGNOSIS -

1. **ECG** - measures the electrical activity of heart & evaluates rate, rhythm, axis, deformity of chambers & valvular defects, ischaemia, infarct & old case of MI
2. **ANGIOGRAPHY**- examination of blood vessels and measure blood flow of heart pumping properly & blockage in any arteries.
3. **TMT**- Examination of heart at the time of exercise / stress.
4. **Lipid profile & C-reactive protein (CRP) levels** - High levels of cholesterol, triglycerides, LDL & VLDL- cholesterol & CRP can increase risk of developing different heart disease.

MANAGEMENT - Positive modifications in lifestyle, proper medication & surgery.

LIFE STYLE - By making some positive modification in life style, one can prevent further attacks of stable angina. These may be regularly aerobic exercise, cycling, swimming & jogging, meditation, yoga, eating a healthy diet of whole grains, take food divided in 3-4 meals, low fat, fish, seasonal fruits, dry fruits & green vegetables. **Avoid** smoking, chewing tobacco, excess amount of alcohol consumption & coffee, excessive chicken & mutton in diet, over eating, reduced stress as may be & take proper sleep. These measures can reduce risk of recurrent attacks & other disease such as diabetes, high cholesterol & hypertension. These conditions can affect stable angina and may be change into heart disease.

MEDICATION -

Nitroglycerin effectively relieves severe pain in stable angina. Cardiologist will decide the dose of nitroglycerin taken by patient when again have an attack of angina. May

be required some other medicines to manage underlying conditions that may precipitate the stable angina as hypertension, high cholesterol & diabetes.

Besides the *Rasaj vikar* described by *Acharya Charak* in the *chapter sutra 28/9* there some other diseases/ *vyadhis*, in which *rasa dhatu* plays a central role in the origin of these diseases. Some of them describing here.

1. RAJYAKSHMA /TUBERCULOSIS -

“ *Kaph pradhane doshestu rudheshu rasa vartamshu, Ativyayino vaapi ksheene ratsyanantra ksheeyante dhatva sarve tat shushyati manav.*” *Su.ut.41/4-5*

“ *Sanshoshnadrasadinam shosh ityabhidhiyte.....*” *Su.ut.41/5*

“*Shrotsam sannirodhat ch raktadinam ch sankshyat, dhatushmanam ch apchyat rajyakshma pravertate.*” *ch.ch.8/40*

Role of varuni in prevention of yakshma-“ *Varunimand nityasya bahiparimarjansevina,avidharativegasya yakshma ne labhteanantaram.*” *Ch.ch.8/164*

A person remain always free from *yakshma* if he/she regularly use the *varuni madya* , follows the rules of *bahiparimarjan/* external purification of body& never ignore the natural urges i.e.stool, urine & semen.

Rasvashroto shodhak Chikitsa-different types of *sura/madya* described in the treatment portion as- “*prasanna varuni seedhumarishtamasvanmadhu yatharhmanupanartham pibenmansani bhakshyan*” *Ch.ch.8/165*

Importance of Madya in treatment-“*Mansmevasht shosho madhvikam pbetoapi ch, niyatalpchittasya chiram kaye na tishthati.*” *Ch.Ch.8/163*

Properties of madya- “*Madya taikshnyoshnyvaishdysukshmtwat shrotsam mukham pramathya vivrnotyashu tanmokshat sapt datavh, pushyanti dhatuposhacha shighram shosh prasmyati*” Ch.ch.8/166

Madya isteekshan, ushna, vishad & suksma in properties hence open *shrotas* leads to *pushti*/nourish the all the seven *dhatu*s & ultimately *yakshma* subsides due to *dhatu*s *pushti*.

2. JWAR /FEVER -

““*Mithya aharviharanam dosha hyamashryashrya, bahnirnirasya koshtagni jwarda syu rasanuga.*”M.Ni. 2/2

Due to faulty life style vitiated dosha vat, pitta, kapha along with rasa dhatu draws the agni from amashya& due to hotness/ushnata of that agni making the whole body ushna/ hot , obstructing the shrotas (this shrotavrodha/obstruction the chanells of circulation is due to the prakupit rasa due to vitiated vatadi dosha), the vitiated doshas circulates in the whole body causing jwar/ fever.

3. SANTAT JWAR-

“*Shrotobhirvisrita deha gurvo rasvahibhi, sarva dehanuga stabdha jwaram kurvanti santatam.*”ch.ch.3/53-54

Twelve ashrya/sthan of santat jwar including **rasadi sapt**/ 7 dhatu,s, tridosha& two mala i.e. mal & mutra. Ch.ch.3/55

Rasa gata jwar-“ *Gurutwam dainyamudvegam sadanam chhardrochako, rasisthte bahistap sangmardo vijrambhanam.*”ch.ch.3/76 Heaviness in the body, deenta (poor

looking),udwega, lethargy,vomiting,anorexia, feeling of tempreature externally, angmard & yawning are the symptoms of rasa gata jwar.

Chikitsa- “ Jware rasasthe vamanamupvasam ch karyet..... ” ch.ch.3/315.

4. PRAMEHA/ DIABETES MALLITUS-

Common Symptom- “Samanyam lakshanam tesham Prabhutavilmutrta.”

The most common symptom of all the *Prameha*/Diabetes mallitus is excessive & dirty urine.

“ *Kapha sapitta pavansch dosha medashrik shukrambuvasa lasika majja rasoj pishitam ch dushya pramehinam vinshatirev meha.* ”ch.ch. 6/8

Tridosha, 06 *dhatu*s except *asthi* & *oj* these 10 are *dushya* in *prameha*, since *rasa dhatu* is main & firstly formed after digestion so has important role in disease progress.*Rasa*isthe one of *dushya* in *prameh* along with 09 other *dushya*.

CHIKITSA SUTRA – “*Sthul pramehi balwanihek krishstathek paridurbalasch, Sambrahnam Tatra krishsya karya sansodhanam doshbaladhikasya.*”

There are two types of *prameh rogi* One is *sthul/ obese* & *balwan/healthy*, second type is *krish/lean thin* & *paridurbal /weak*. Procedures to make *Sambrahan/ weight gain*, *sansaman* for the *krish rogi*&*sanshodhan /purification* in which accumulates the *dosha*.

TREATMENT –

Kwath- Triphala, Phalatrikadi, Darvyadi & Salsaradi gana.

Churna – Triphala, Methi, Guduchi kand & Nimbadi.

Vati- Chandraprabha, Shivagutika & Vijaysarghan.

Yog – Guduchyadi, Nisha triphala, Triphala kalk & Bhudhatryadi.

Rasa- Trivang, Vasantkusumakar, Vangeswar, Mehantak, Abhrak & Chandrakala.

Rasayan- Amalki & Shilajatu

Pathya- Godhum, Black gram, Mung, Yav/ barley, patol, Karela marich, ruksa, kashay, katu & tikta rasa.

Apathya- Sura/wine, Gud/jaggery, Ikshuras/cane juice, Meat of aquatic animals, smoking & day sleep.

Nidan parivarjanam – Avoiding the causative factors.

Exercise – regular aerobic exercise very essential for the prevent of the disease & cure both. Acharya Shushrut described that “ **Shat Yojan Gaman**” / **100 X 4 = 400 km**. Second form of daily aerobic exercise in the form of *Krishi karya*/ Agriculture & *Koop khodna*/ prepare a well.

Importance of Shilajatu - Shilajeet is the namittik rasayan for the treatment of Prameha. According to Acharya Shushrut in the whole life of a patient of prameh should consume **100 tula/ 4000 tola = 4000gm or 4kg**.

5. RASA SHESHAEERNA-

“Udgarshudhapi bhaktakansha na jayte hridguruta ch yasya, Rasavsheshen tu spreshekam chaturthmetat pravadyanjirnam.” Su.su.46/503

Even after pure eructation/ *udgar* no desire of taking the food, feeling of heaviness in the heart, chest region & waterbrush/*prasek* from the mouth is known as *ras sheshajirna*.

Here Rasa refers *rasa ka ashrya dravya*. Mostly part of *ahar dravya* become digested a smaller part remain undigested, this is *Ras sheshajirna*. Achary Gangadhar, “*Rasa shesho rasa shesh.*”

Chikitsa-*Rasa sheshe divaswapam langhanam vatvarjanam.*”Y.R.

“Rasa sheshe shirya ch” Bh.Pr.

Sleeping, shwedana on the abdomen/udar, use pachak aushdhi & langhana.

Acharya Charak – In *ajeerna*, in condition of severe pain/ *shool* avoid the *shoolaghan/* pain killer. It can increase the *aam* & complication/ *updrava* can be occurred.

On the basis of symptoms we can not compare the *rassheshajirna* with one of the condition of upper GIT. This condition partially looking like GERD, Dyspepsia, Heart burn, Gastritis, Peptic ulcer Acid Peptic Disease & Hiatus hernia. However its more close to GERD (Gastro Esophageal Reflux Disease)

6. GRAHANI ROGA / IBS-

As per Ayurvedic view the *agnimandya* is the one solo most important casue of almost all the diseases.

IMPORTENCE OF AGNI- “*Yadannam dehdhtojo balvarnadiposhakam tatragniheturaharanna hyapakwadrasadya.*” Ch.ch.15/5

The food/ *anna* is the nourishing the *deha*, *dhatus*, *oaj bala& varna* etc in this functioning the *jatharagni* is the principal cause since from the *apakwa ahar* its imposible the origin of *shudh rasadi dhatus* in a proper way.

NIDAN(AETIOLOGY) & SYMPTOMS - “*Dusytyagni se dushtoannam ne tat pachati laghuapi, Apachyamanam shuktwam yatyannam vishrooptam.*” Ch.ch.15/43

Dushit jathragni can not digest even taken a light food semidigested / unproper digested *ahar* convered into *shukt/* vinager & undigested become as *visha/* toxic.

SITE & FUNCTIONS - “*Agnyadhishthanamnnsya grahnad grahnimata nabherupragni balenopshtbdhopbrahnhita, Apakwam dharyatyannam pakwam srajati parshwat durbalagni dushta twammeva vimunchati.*” Ch.ch.15/56-57

Grahaniis the site of agni it take up the eaten food hence term *grahani*. Its Strong & depends upon the *agnibala&* palced above to the umbilical regin.It grasps/ hold the undigested food, dischared the completely digested , from the lateral part of GIT. When everagni becomes very weak/ *mandagni* to digest the food it dischared the *apakwa/* undigested food too.

TREATMENT - “*Leenam pakvashyastham vaapyam sravyam sadeepne shariranugate same rase langhan pachanam.*” Ch.ch.15/74

If *doshas* arein *pakvashya* then *virechan* with *deepan* - *pachan*, if *inamashyathendeepan*& if *saam rasain* whole body then *langhan* - *pachnan*.

Single Drugs –*Bilwa, Kutaj, Rasanjan, Dhanyak, Dadim, Takra, Indryav, Musta, Dhatki, Mochras, Shalmali, Lodhra, Ashok, Ahiphen, Sh.Bhanga, Shunthi, Chitrak, Dhatur, & Chavya.*

Parpati- *Panchamrit, Gagan, Ras, Vijay & Suwarn.*

Churna – *Bilwadi, Dadimashtak, Vrhad Gangadhar, Lai churna*

Vati- *Agnitundi, Kuberakshadi, Mahagandhak, Sanjivani, Chitrakadi, Vishtinduk & Kupiluhingwadi.*

Rasa – *Grahnikapat, Kravyad, Ramban,*

Aasav & Arishta- *Kutajarishtha, Takrarishtha & Ahiphenasav*

Kwath- *Dhanyapanchak*

Avleha – *Bilvavleha*

Importance of Takra – “*Takram tu grahnidoshe deepangrahilaghwat, Shrestham madhурpakitwann ch pittam prakopyet. Kashayushna vikasitwadr okshayachev kaphe hitam, Vate syadamlsandratwat sadyaskamavidahhitayt, Tasmata takraprayoga ye jatharanam tathaarshasam.*” Ch. chi.

7. AAMVAT/ RHEUMATOID ARTHRITIS-

Nidan & Samprapti- “ *Virudhahar chestasya mandagnirschalsya ch snigdham bhuktvato hyannam vyayamam kurvastathha, vayuna prarito hyam shleshmasthanam pradhavati tenatyartham vidhagdhoaso dhamni prtipadye, vatpittkapherbhuyo dushit soannjo rasa shrotansyabhisandyati nanavarnoatipichil, janytyashu daurbalyam gauravam hridayasya ch vyadhinamashryo aamsangyoatidarun yugpatkupitavantstrikk sandhipraveskho stabdham ch kuruto gatramvata se uchyte.*” M.Ni.25/1 The role of *rasa dhatu* in the origin of all the diseases by many Acharya. Acharyakaviraj Gannath sen ji name the *Aamvat* as *Rasavat*, The *vat dushit* by the *amrasa* is termed as *Aamvat* or *Rasavat*. Shudh *rasa dhatu* not causing any disease/ harm to the body & *dushit rasa* caused many disease. In his book “*Sidhant Nidan*” Rheumatic arthritis in the relation to *Rasavat*. Hence name of disease is *Aamvat* instead of *Rasavat* is justified.

Chikitsa sutra – “*Langhanam swedanam tiktam dipnani katuni ch, virechanam snehpanam bastyaschamarute.*” Chakradutt

Single medicines – *Bhallatak, Rasna, Nirgundi, Shunthi, Kupilu, Pippali, Guduchi, Erand & Guggulu.*

Churna – *Vaishwanar, Ajmodadi, Panchkol & Trikatu.*

Vati – *Sanjivani, Agnitundi & Kupiluhingwadi .*

Rasa – *Sameerpannag, Aamvatari, Mallasindur & Vatgajankush.*

Guggulu – *Singhnath, Yograj & Trodashang.*

Swaras – *Nirgundi, Rasna & Prasarni.*

Aasav / Arishta – Dashmularishta, Punarnavasav

Tail/Ghrit –Erand,Amritaghrit & Shunthighrit.

Swedan – Saindhav baluka,Nadi Nirgundi patra.

Snehan – In niramavastha

For pain –Panchguna & vishgarbha tail.

For stiffness –Dhatura, Prasarini & saindhavadi tail.

Basti –Dashmula, Saindhav,Vaitran & Kshar.

Pathya – Rasona, Hingu, Yavani, Marich, Shunthi,Yav ,Karvellak & Parwal.

Importance of Erand tail – “Aamvatgajendrasya Sharirvancharin,Nihantysavek ev erandgajkeshari” Bh.Ra.

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21. Figure of cover page taken from [www. webMD](http://www.webMD).

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Sandivat, Liver disorders & Obesity/ Sthaulya. Dedicated for the ideology of teaching , basics of *Ayurveda* & develop the treatment plan based on purely *Ayurvedic* basis. Approximately 10 herbal preparations being trial at different college level & work pulished on the basis of the result of them. Published 15 research articles in different national & Intrnational journals So far, Published 1 book. Delivered 15 guest lectures as Resource person/ guest speaker in different CME & other programes organised by *AYUSH* deptt. Still working on different herbo mineral formulations described in *Ayurveda* to evaluate the efficacy & utility in the treatment in the present day scenario