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REVIEW ARTICLE

EFFICACY OF KSHAR SUTRA IN THE MANAGEMENT OF ARSHA (HEMORRHOIDS)

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ABSTRACT

Large population of the world troubled with *Arsha* (hemorrhoids) till now. This is perhaps due to incompatible of the human diet and social obligations demanded by civilization. Lifestyle related factors are mainly thought to be cause of increasing prevalence of hemorrhoids (*Arsha).* In modern management Haemorrhoidectomy is most commonly employed technique which is a painful, aggressive and more invasive procedure with less satisfaction and high risk of recurrence. The *kshar* sutra ligation in *Arsha* (piles) may be said a type haemorrhoidectomy by medicated thread without complication with in short time with successful cure rate. No special preparation of the patient is required. The treatment is ambulatory and patient may return to his light work after 3-4 days of ligation. Blood loss during ligation is nominal varying from 0.2 to 1 ml from one pile mass only. *Kshar sutra* ligation in *Arsha* is one of the traditional procedures described in *Ayurveda* for the management of *Arsha. Aacharya charaka* has advised *ksharkarma* for the management of *Arsha*. *Chakradatta*, the commentator of *Sushruta Samhita* also mentioned indication of *ksharsutra* ligation in *Arsha*.

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INTRODUCTION

Haemorrhoid may be defined as vascular engorgements of the haemorrhoidal Plexuses in the submucosa of anal canal beneath of mucocutaneous lining (J. P. Nessel Rod 1970). This is common diseases of anal canal which affects both sexes. The incidence of piles apparently increases with age and is extremely rare below age of puberty. Bleeding is most prominent symptoms of hemorrhoids in many of the patients. The term hemorrhoid has been derived from Greek word (haem- blood, Rhoos- flowing) which means bleeding. And the word pile has been drived from Latin word "pila' which means mass or ball like. Usually hemorrhoid means bleeding haemorrhoidal plexuses mass in anal canal. Piles word used specially for bleeding and non bleeding haemorrhoidal plexuses with mass.

AETIOLOGY

It is very difficult to pin point any etiological factor for development of piles. A number of factors are supposed to play an important role in the genesis of hemorrhoids.

Heredity: A number of patients give the history of piles in the same family. So some predisposing factors like congenital weakness of wall of hemorrhoid plexuses may be responsible for development of piles.

Morphology: In the quadrupeds the gravity does not retards the venous return from the ano rectum and veins are completely devoid of valves. So hemorrhoids are extremely rare in the animals. In human in erect posture high pressure in the superior hemorrholdal plexuses is produced

Anatomical: The superior haemorrhoidal plexuses lie in the loose submucosa of the anal canal, so during act of defecation the veins are compressed by contraction of rectal musculature. So engorgement of haemorrhoidal plexuses may occur.

Physiological: During act of defecation the anal canal is opened to atmospheric pressure and venous pressure in the haemorrhoidal plexuses is raised.

Exciting factors: Constipation, diarrhea and straining at stool, prolong sitting and use of purgative for lomg time may initiator hemorrhoids.

Dietary habit: Deficiency of the cereal fibers in the diet causes late formation of the faecal matter in large bowel the delayed digestion result in choric constipation which may increase the tends of hemorrhoids.

Secondary Causes: Portal obstruction cirrhosis of liver, portal vein thrombosis and pregnancy. Due to an obstruction of drainage of blood in the portal system in the liver, vascular statis occurs in the hemorrholdal venous plexuses causes the secondary piles, similarly during last week of pregnancy the return of venous blood from pelvis is interfered with increased size of the pregnant uterus, the increased laxity and vascularity of pelvis with enlarged uterus promotes the haemorrhoidal formation.

Incidence of anorectal disease in OPD

- Sushruta Colorectal clinic from 2010-11 to 2014-15
- 38485 new patients were registered during the 5 years and cases were analyzed and following result were disclosed.

- **Fistula in ano** - 19.56%
- **Piles** - 16.63%
- **Fissure in ano** - 49.59%
- **Protocoliis** - 7.86%
- **Other** - 6.12%

Thus it could be seen from above table that incidence of *Arsha* (Piles are only 16.63%), Fistula in ano 19.56%, colitis 7.86% , other 6.12% were as no of fissure in ano , is about 50% of total anal diseases.

Pathology: Commonly hemorrhoids are arranged in the anal canal at 3, 7 and 11 o clock position, when examined in lithotomy position each hemorrholdal mass consists of three parts.

The pedicle: It is situated in the anal canal at anorectal junction and covered with pink mucosal membrane.

- **Internal haemorrhoidal mass:** It is bright red and covered by mucosa, it is just below the pedical at anorectal junction.
- **External hemorrhoid:** It is associated with enlarge internal hemorrhoids covered with the modified skin of lower anal canal below dentate line.

Number and position of piles: In majority of patient there are three main positions of piles, two at right side and one in left side in and canal. They are termed as the right anterior and right posterior and left lateral piles. Sometimes additional piles masses may be seen between these primer masses at 1 & 5 o clock position.

Degree of hemorrhoids

1 **First degree:** During defecation the pile mass descends down in the lumen of anal canal but not outside the anal orifice.
2 **Second degree:** When pile mass become larger in size and descends down outside the anal orifice during defecation and reduced itself.
3 **Third degree:** The pile mass descends down outside at anal orifice during the defecation and reduced digital manipulation . It does not reduce itself.
4 **Forth degree:** In this stage , internal hemorrhoids with external hemorrholdal plexuses gain larger size and remain permanently prolapsed at anal orifice. After digital reduction reprolapse and remains permanently prolapsed.

Clinical features: Bleeding and prolapse are the chief symptoms of piles. Prolapsed piles often produce mucoid discharge and irritation, at perianal region.

Bleeding: It is main symptom of hemorrhoids. In the early stage there is slight bleeding during defecation. Commonly patient is constipated. The Blood is usually bright red, unmixed with stool. It may occur before or after defecation may, be expelled in large or small quantity.

Prolapse: It is late symptom of the piles. Initially the pile mass protrudes at anal orifice during act of defecation and slips back into anal canal. Later they tend to prolapsed and require digital replacement. Finally in last stage piles remain permanently prolapsed at anal orifice. Prolapsed piles cause discomfort, discharge and irritation. Chronic irritation and repeated inflammatory change may lead to fibrous of pile mass.

Discharge: Prolapsed pile mass secretes mucoid discharge, occasionally, faecal matter also stains the under clothes and causes more discomfort to the patient.

Pain: Normally piles are painless, unless they are complicated by some secondary problems like fissure, strangulation, thrombosis, ulceration etc.

Pruritis: When pile mass secretes mucoid discharge and perianal skin becomes moist, then prutitis occur.

Secondary Anemia: Chronic intermittent blood loss from hemorrhoids may results severe anemia.

Diagnosis

- Bleeding during and after defecation.
- Protrusion of mass during defecation replaced itself or digitally.
- On straining at stool pile mass may be prolapsed at anal outlet.
- During proctoscopy pile mass may be seen in anal canal.

Examination

Inspection: - In first degree hemorrhoids nothing is see at anal outlet. Larger third and fourth degree hemorrhoids may be prolapsed at anal orifice. The outer pert of the piles mass is covered with the skin and inner portion with the mucosa, it called extern internal piles.

Palpation: During digital examination pile mass is not palpable, chronic long standing prolapsed piles and chronic inflamed thromboses piles may be palpable.

Proctoscopy: It is essential for diagnosis of piles, a lubricated proctoscope is passed into the anal canal and obdurater withdrawn and patient asked to strain down words as he does during act of defecation the pile mass bulges in to lumen of proctoscope. And proctoscope is gently with drown, sometimes bleeding may occur. The site of the bleeding point is noted and the proctoscope is withdrawn completely. The first and second grade remains prolapsed at anal orifice and return back slowly into the anal or may remain prolapsed and need digital replacement.

Complications of hemorrhoids

Acute Sever Bleeding: It occurs mostly in second stage of hemorrhoids. Generally bleeding is severe and needs emergency management.

Thrombosis and Strangulation: The large second or third grade hemorrhoids when prolapsed are gripped by sphincteric spasm during act of defecation. Edema of anal and perianal skin may occur. The prolapsed pile mass are extremely painful, tense and tender, if not reduced within 1-2 hours, thrombosis of externo internal haemorrhoidal plexuses may occur. Due to extravasations of blood, the skin covered surface of mass becomes tense and moderately tender. The strangulation and hemorrhoids becomes dark purple or blackish in colour and feels hard. The pain may be diminished but tenderness in present.

Ulceration: Strangulated and thrombosis is accompanied by sever edema and ulceration of hemorrholdal surface which are moderately painful & tender.

Gangrene: The strangulated hemorrhoid undergoes gangrenous change due to compression of arterial supply. Superficial necrosis and ulceration may occur.

Fibrosis: Long standing strangulated and thrombosed pile undergoes into dense fibrous mass and is shrinked into smaller size at anal orifice.

Treatment

Various form of treatment for hemorrhoids available are

- Medical therapy
- Operative
- Sclerotherapy
- Manual anal dilation
- Cryosurgery
- Elastic band Ligation
- Photocoagulation
- Stapling Haemorrhoidectomy

ARSHA (HEMORRHOIDS)

Definition:

- *Arsha* may be defined as vascular enlarged mass in the three *vali* of *guda* (Mucocutaneous lining of anal canal)
- *Arsha* has been placed in group of mahavyadhi (most trublisome and difficult to cure disease) in Ayurvedic classic (*Charak*)
- *Vagbhatta* tells that *Arsha* as muscles like fleshy projection through anal canal. Which kills the life like a enemy and create obstruction in anal passage.

The disease which kills life like an enemy is known as *Arsha*. (*Charak*)

Anatomy of guda (Anal Canal): The anal canal is located into the lower part of the trunk in the *shorni* (The pelvic cavity). The *shroni* consists of five bones. Related organs to guda (Anal canal) in to the shorni (pelvic cavity) are vagina. Urinary bladder, dome of bladder, prostate and seminal vesicles.

Guda (Anal Canal): The *guda* (anal canal) commences from terminal end of *sthoolantra* (large intestine) and open outside the body as anal orifice in mid perineum. It is the one of *marma* (the vital part of body). Any accidental injury in this region may cause immediate death. Guda is one of the *vahy srotas* (External opening of body like, nose, mouth and ear etc and excretes faeces and flatus.
According to *Charak Samhita* the guda consists of two parts. The *uttar guda* (the upper anal canal) and *adhar guda* (The lower anal canal). He has not mentioned any demonstrable line dividing the uttar and *adar guda*. The renowned commenter of *Charka Samhita*. *Chakrapanidata* described the *uttar guda* as a reservoir of the faeces and *adhar guda* as discharge out of the faeces. Normally in most of the cases the rectum has some quantity of faeces in its ampullary part. So the lower part of the rectum and anal canal may be consididered as guda (Anal canal). According to *Sushruta* the entire length of *guda* is five and half angula including one angula of *gudaustha* (the anal lips). According to dalhana the commenter of *Sushruta Samhita* the angula measurement means maximum width of the pulp of individual thumb or thumb impression. An average with of thumb total length of guda including anal lips is 5.5 x 2.0 = 11.0cm. The length of anal lips on outer side is one and half yava from the hairy line of the perianal skin and one angula on medial side in anal canal from the base of samvrani below up to the anal lips. Anal lips are regarded as gudaustha.

Concept of vali of guda: According to *Sushruta* the *guda* consists to three vali (the semicircular folds anorectal mucosa) The *Pravahani*, *Visargani* and *Samvrani*. Each vali is situated into the guda at equal distance of one and half angula from the base of anal lips. The proximal most vali attached to the anal lips is called *Samvrani* the middle one above it is called *Visargani* and digital most of guda attached to the sthoolantra is called *Pravahani* thus the total length of guda or vali becomes four and half angula about 9.0 cm excluding one angula gudaustha (anal lips). The vali are curved folds of mucosa placed one upon other. The colour of *vali* resemble of the palate of elephant. It is somewhat blackish or pinkish in colour. The upper one third or half of the rectum is intra peritoneal and lower two third or half of the rectum is extra peritoneal. Anal lies in the pelvic (Shroni) under the cover of pelvic peritoneal reflection, the pelvic portion of the rectum under peritoneal reflection is sacculated and called ampulla of rectum. The distance of anterior peritoneal reflection over rectovesile or recto uterine pouch on the back of urinary bladder and seminal vesicle in male is about 8-9 cm and in female 5-8 cm from perianal skin. (Golighr J.C. Surgery of Anus Rectum and colon). There is also variation of these distances in different individuals. Thus total length of guda (anorectal canal) as describe to the length of anorectal canal from perianal skin to the anterior peritoneal reflection which is about 8-9 cm.

One angula = width of pulp of thumb impression which measures about 2.0 cm approximately.

Classification of *Arsha*

According to aetiological factor *Arsha* have been classified into two types.

- *Sahaj Arsha* (Congenital)
- *Uttarkalaj Arsha* (Acquired)

According to predominance of dosha- six types of *Arsha* are maintained in old Ayurvedic classic. *Vataja, pittaja kaphaja, Dvandvaja, Sannipataya & Rakatja*

According to character of bleeding

- *Parisravi Arsha*
- *Shushka Arsha*

According to the site

- *Bahya Arsha* (external pile)
- *Abhyantra Arsha* (Internal pile)

According to therapeutic basis

- *Aushadha sadhya*
- *Sastra sadhya*
- *Kshar Sadhaya*
- *Agni Sadhya*

According to prognosis

- *Sukha sadhya*
- *Krachha Sadhya*
- *Yapya*
- *Asadhya*

Arsha according to dosha

Vataja: Dry, hard, painful, different shapes, centrally irregular surface, different colours of fleshy masses, associated with constipation, pain radiating to perianal region during defecation.

Pittaja: Small, bluish, moist , fleshy mass of different shapes like toung of parrot and enlarged mass straining with passes of blood mixed stool and burning sensation during defecation.

Kaphaja: Broad base, smooth, fixed, oval fleshy masses and does not suppurate sever purities and passing of mucous containing stool.

Sannipataja *Arsha*: Similar to coral and gunja colour and excessive bleeding and other features are similar to *Pittaja Arsha*.

Raktaja: Fleshy masses with bleeding excessively during defecation usually associated with blood loss symptoms.

Sahaja: Genetically dominated usually appearance like fleshy masses with immune compromised symptoms.

Clinical Features

- Indigestion, Constipation, hyperacidity, and abdominal distention.
- Loss of appetite.
- Bleeding per anum may or may not be present.
- Protution of mass during defecation may be present or may not be present.
- Cutting and burning pain in anal canal may be due to associated anal fissurr, strangulated piles, Prolapsed and inflamed piles.
- Pruritus ani, itching in anal canal amy occur . Obstructive symptoms in anal canal may also occur.
- Secondary anemia may present due to excessive blood loss.

Upadrava

Untreated *Arsha* may lead to some of the clinical conditions which are described as complications. The common *Upadrava* are *pandu roga*, *gulma, shopha, badhgudodra and trikvedna.*

Treatment

Five type of treatment of *Arsha* are described by *Sushruta*.

- Auoshdhi (Medical treatment)
- Kshar Karma (Chemical treatment)
- Agni Karma (Thermal Cauterization)
- Shastra Karma (Surgical Treatment)
- Kshar sutra (Excision of pile masses by ksharsutra)

Auoshdhi (Medical Treatment): The general principles of treatment of *Arsha* are diet and drugs that regulates the *Vata* and promote the power of digestion. Recently developed *Arsha* with minor symptoms and internally located in the lower most of the guda, uncomplicated *Arsha* are treated on palliative line.

- The treatment consist removal of constipation by use the mild aperients.
- Control of bleeding by haemostatic's.
- Improvement of digestion, appetite and regular late bowel habits.
- Use of strong laxative highly, spicy and heavy diet should be avoided.

Some of the single drugs used in *Arsha* are maintained here.

Haritaki, Kutaja, Bhallataka, Pippali, and *Chitrakmula*.

Common medicines used for the treatment of *Arsha* are mentioned here

Panchasakar churna, Bilwadi churna, Satsakara churana, Abhayrista., Kutajarista., Arsoghni vati., Arogyavardhini vati., Kankayan gutika., Arsh Kuthar Rasa., Bol Vadha ras., Triphala guggul., Kaishore guggul., Shatphala ghrita.

Kshar Karma: It is procedure where *Chedana, Lekhana, Daran* etc. are performed by employing some specially formulated yoga called *kshar.* Internal pile masses are treated by application of *tikshna kshar* as mentioned by *Sushruta*.

Method of kshar karma: Patient is made to lie down in lithotomy position and *Arshoyantra* is introduced into *guda* after following all the preoperative procedures. The pile masses is scraped and rubbed according to the condition and then kshar is applied over the pile masses for hundred *Matra kala* till it turns to the colour of ripened *Jambu phala* then it is washed with juice of *kanji* and *amla rasa, Dravyas* to neutralize the *kshar.* Then *Yastimadhu grit* applied on pile masses and *arshoyantra* is removed. Only one pile mass may be applied with *kshar* at one time, there after the procedure is repeated in another pile mass with an interval of 7 days.

Agni Karma: It is indicated in the chronic *Arsha*. The piles masses are surgically excised and residual stump is cauterized by red hot iron probe, shoes shaped or brush like instrument.

Shastra Karma: The prolapsed pile masses with mucoid discharged are excised and cauterized by red hot instrument.

Kshar Sutra: In *Arsha* besides *kshar karma*, *Agni karma* and *Shastra* karma *Sushruta* has described the pile mass ligation by *kshar sutra* for excision of *Arbuda* (*Arsha*) in the chapter of *Nadi Varna* (sinus) (*chikitsa Sthana*). Hemorrhoids (*Arsha*) have been defined as vascular tumor by JP Nasselrod, JP (1970). The *Sushruta* technique of ligation of *Arbuda* (*Arsha*) is just similar to the technique of miles (1919). Miles has advocated the v shaped incision of perianal skin covered part of piles during ligation. Miles treated 5000 piles masses by plain thread ligation without excision of pile masses and reported good results. *Chakrapanidata* has also advocated the excision of pile masses and fistulas tract by ligature of strong medicated thread.

MATERIALS AND METHODS

Manufacturing of kshar sutra: The word *kshar sutra* and its application into the sinuses, fistulas, tumors and piles like mass (*Arbuda*) have been described in *Sushruta Samhita* in the 17th chapter of *chikitsa Sthana.* The detail description of *kshar sutra* is not available in ancient Indian literature. *Dalhana* has mentioned the *kshar* peetain strain which means the thread impregnated with liquid *kshar* after dipping in it for sometimes. *Chakrapanidata* has described the technique of manufacturing the thread by smearing it with the latex of *Snuhi* and powder of *haridra*. He has not mention the number of coating of latex and haridra powder. On the basis of above references, after various experimentation and modification the *kshar sutra* was prepared and standardized in department of *Shalya* and *Shalakya*. IMS, BHU, Varashi (Deshpande P.J and Sharma K.R.1968)

Materials

Kshar sutra hangers: Wooden or aluminum made rectangular frame measuring 37x 50 cm in size are taken. The sides vertical arms of the frame are fissured 2 mm deep at internal of 3 cm. The frame has hook on mid upper surface of horizontal arm.

Kshar sutra cabinet: Wooden or steel made cabinet of 4x3x2.5 fit size is used for protecting the *kshar sutra*. An aluminum made rod is fitted into the mid lateral walls of the cabinet 30 cm, below from the roof of cabinet two electric bulbs of 200-500 volts are fitted on the side wall which provide the heat to dry the kshar sutra during process of smearing the drugs.

Thread: The surgical thread linen Barbour's no 20 is standard and very useful for kshar sutra preparation. Ordinary cotton thread 9/20 (Modi or Vardhman) is also useful for *kshar sutra* preparation.

Latex of euphorbia nerifolia: This plant is grown all over the country. It is called *Snuhi* and *Senhud* in local language.

The latex is sticky and milky in colour. The latex coagulates rapidly within 1-2 hours after exudation from stem and collection. The latex is matured and thick in summer season and it becomes thinner in rainy season the thread is spread on rectangular frame, fresh latex is collected and applied on the thread with push of index and thumb fingers one coating is done per day and frame is placed into cabinet to dry it.

The order of coatings is as follows:

No of coating

1Snuhi Ksheer - 11
2Snuhi Ksheer + Apamarga kshar -07
3Snuhi Ksheer + Haldi powder - 03
Total no. of coating - 21

The prepared kshar sutra are dried well and cut into pieces from side arms of hanger. The thread are folded from the center and pack into tubular polythene bags and sealed with polythene sealing machine. *Again kshar sutra* containing tubular bags are sealed in to other big polythene bag which contain 10 to 20 single tumbler bags. Date of manufacture, batch No. and PH is labeled on each smaller bag containing the kshar sutra.

Technique of kshar sutra ligation in *Arsha*/ piles: The kshar sutra ligation in *Arsha* (piles) may be said a type haemorrhoidectomy by medicated thread without complication with in short time with successful cure rate. No special preparation of the patient is required. The treatment is ambulatory and patient may return to his light work after 3-4 days of ligation. Blood loss during ligation is nominal varying from 0.2 to 1 ml from one pile mass.

Requirements: Artery forceps, Babcock, proctoscope, syringe loaded with 2% xylocains , Nirodh, syringe loaded with xylocains viscous, curved niddle, Niddle holder, scissors, kshar sutra, cotton, *yastimadhugrita*, bandage, plain thread and light on stand to focus on whole perianal region.

Preoperative preparation: Before *kshar sutra* ligation complete history of the patient and disease was recorded specially designed clinical research proforma for Anorectal disease. A complete history of the case including age, sex, occupation , heredities factor,chroniccity etc. and complete finding of digital and proctologic examines or recorded. Before the day of operation patients should take light food. Mild laxative is given at bed time during night. Next day before operation injection of tetanus toxide is given.

Operative Procedure: Patient is placed in lithotomy position on operation table. Light is focused directly on anal region & lubricated index finger is inserted in to the anal canal. Proctoscope is passed to its full length into the anorectal canal and pile masses are visualized. The proctoscope is gradually withdrawn and patient is asked to strain downwards as he does during act of defecation. The proctoscope is removed and placed into separate kidney tray. Now pile masses are prolapsed at anal orifice. The anal and perianal region covered with cut towel sheet. Patient is asked to restrain downwards for complete protrusion of piles masses. Then 2% xylocains is injected in to the pile mass at the most prominent part of mucosal surface. 1.5 to 2 ml anesthetic solution is sufficient for one pile mass. Then the distended pile mass is compressed alternatively for 3-4 time with thumb and index finger to diffuse the anesthetic solution up to the base of entire pile mass. The pile mass is grasped with allice forceps and dragged slightly downwards and laterally and held slightly under traction. An arterial clamp is applied at the base of the pile mass radial to anal canal and fixed. Next a curved niddle threaded with kshar sutra in its eyes is passed through the middle of pile mass behind the clamp with the help of niddle holder. Niddle is passed through pile mass to pass out of opposite side leaving the kshar sutra through the pile mass. Then a strong transfixation ligature is applied tightly at the base of pile mass. Three successive knots are applied to avoid the slipping of knot.

After ligation two ends of the thread are cut leaving 1-1.5 cm stump from knot. Sometimes in case of large pile mass an additional ligature of plain thread is applied to compress the vascular supply to pile mass. After that lubricated index finger with the *Yastimadhu girta* is applied on the ligated pile mass. The pile mass is replaced digitally in the anal canal. The perianal region is cleaned and sufficient cotton pad is placed at anal region and T – Bandage applied tightly to prevent the reprolapse of lighted mass. The patient is shifted to the bed.

Post Operative Care: Patient should rest in supine position for 4 to 5 hours. Sitting posture strictly avoided for 6 to 8 hours. On the same day patient is given *Jatayadi tail* enema and hot sitz bath at night. Light diet is recommended to the patient. On the next day, if patient has not any complication, he is discharged from hospital. Patient is advised to come after 7 days for routine checkup.

Complications: Complications may develop within 12- 48 hours of post operative period due to negligence of post operative care maintained above. The common complications are pain , bleeding anal abscess, prolapsed of piles, retention of urine.

Post Operatively Patient is Advised:

- *Jatayadi tail* enema 3 ml with help of plastic syringe attached with rubber catheter for two time morning and evening before defecation.
- Hot sitz bath twice daily after jatayadi tail enema and defecation.
- Mild apparent like *Panchaskar churan* one tea spoon full at bad time with Luke worm water.
- Analgesics on requirement.
- 5-7 days oral antibiotics.

Contraindication: - Post operatively patient is instructed not to indulge any time of strenuous work, Sexual activities, non veg diet, alcohol and riding on two wheeler vehicle live cycle, motor cycle etc.

Post Operative Review: The next day after kshar sutra ligation patient was freely modular without any discomfort. They were discharge from Hospital and advised ABIDE strictly the post operative instruction as mentioned by *Sushruta*. Patient was asked to come in OPD clinic to checkup for post operative review weekly interwel. He is asked not to worry for mild pain or bleeding between 5-7 days. Which may occur whom full mass is cut through leaving a small wound. After 5-7 days antibiotics or stopped and replaced by *Triphala guggul*, tab Septilline or *Gandhak Rasayana*. Generally post operative wound is held off within three weeks. Some patient wound healing is delayed up to 4 rarely 5-6 weeks. After wound healing patient were called for regular checkup in OPD clinic at monthly or two monthly for 3-8 months.

Clinical Observations

Age: It could be seen that piles are very common in young and adult person between age group of 21 – 40 year after that between age group of 41 – 60 years there number is slightly declined. But after age of and below 20 years there no. is age greatly reduced.

- **Sex** :-It could be seen that incidence of pile is more in male as compared to females, in male incidence of piles is 80% and female 20%.
- **Occupation:-**During clinical study nature of work was also considered. that pile is mostly common in active person 80 %. Incidence of piles in sedentary person is greatly reduced 20%.
- **Diet: -** Nature of diet is also contributory factor leading to piles. Incidence of piles is equal in vegetarian's & non vegetarian's person.

- **Bowel Habit: -** Analysis of 30 patients in terms of their hard and soft bowel habit shows that stool was hard in 46.70% patient whereas 53.30% patients told that their stool was soft.
- **Chronicity: -** In present study the chronicity of the disease was also recorded. It could be seen that two third of the patients 66.6% are very much conscious of their disease and take earlier treatment within 5 years of chronicity. After 10 years of chronicity the number of cases was very less 13.4%.
- **Religion: -** It could be seen that 93.3% patient belongs to Hindu religion and only 6.7% to Muslim communities.
- **History of previous disease :-** History of other anorectal diseases like anal fissure or protocoliis or anal fistula was were present in 13.4% cases and in 86.6% cases history of such types of diseases was absent.
- **Arsha According to Dosha: -** During clinical study of 30 cases the type of *Arsha* according to dosha was also studied carefully according to psychosomatic constitution of body and nature of the diseases as described in *Samhita*. It could be seen thus nearly in half of the patient 46.7% the *Arsha* was *Vataja* type, whereas the number of *Pittaja* and *Kaphaja Arsha* were just half of the *Vataja Arsha* 20% and 23.3% receptively were present the patient of *Raktaja* of *Arsha* was less in number 10%.
- **Bleeding: -** In present study of 30 cases of piles bleeding was present in 16 cases 53.4% and in 46.6% cases bleeding were not complained patients.
- **Clock Wise Position of *Arsha* Treated By Kshar Sutra: -** 60 pile masses treated by *kshar sutra* in 30 patients. It could be seen from the that maximum numbers of piles occur on right side at 7 and 11 'o' clock position in rights superior hemorrholdal plexus. 23 at 11 'o' clock position at 18 at 7 'o' clock position the incidence of pile are less on left side in the superior hemorrholdal plexus. That is 15 at 3 'O' clock position and 4 at 5 'o' clock position.

Thus our of the 60 piles masses ligated by kshar sutra 41 (68.3%) were located on right side whereas only 19 (31.7) just one third of right side were located on left side.

- **Site of piles: -** It could be seen that maximum number of cases 63.4% piles were internal and in one third 30% cases thirty percent were external. In very less Number of cases 6.6 the piles were large affecting both external and internal haemorrhoidal plexus.
- **No Of Piles ligated In one session :-** The one pile mass ligated in 13 patient and 2 piles in 6, 3 piles in 9 and 4 piles in two patient ligated at one session. Thus total number of sixty piles was ligated in 30 patients. In all the *kshar sutra* ligated cases mild discomfort by a few patient within 12 hours of ligation, after that patient were free of discomfort and fully satisfied and discharged from hospital within 24 hours of ligation. Post operative complication like severe pain, bleeding, retention of urine , anal abscess, anal stricture were not seen any of the patient post operatively.
- **Recovery Time**: It could be seen that average time required for cutting of pile mass was 7.6 days after that the time required for complete wound healing was 13.39 days. Thus a total time of 25 days is required for complete are of the piles by kshar sutra ligation.

RESULTS

Thus result of kshar sutra treatment for piles are excellent without reoccurrence or occurrence within short time of post operative clinical review. Not a single patient complained any problem during post operative reviews period.

Surgical complications like pain, bleeding, retention of urine, anal abscess, infection, anal stricture are extremely rare with kshar sutra ligation of piles. Thus kshar sutra treatment of piles is totally safe, affective, economical with high cure rate and surgical complications are nil, it is totally ambulatory, patients can return to his light work after 2-3 days.

DISCUSSION AND CONCLUSION

- The follow up study of post operative patients was conducted for 3-8 months. Total 30 surgical patients randomly selected which were suffering from *Arsha* (Hemorrhoids). They were treated by kshar sutra ligation from May 2015 to December 2016.
- The analysis of clinical study revealed that the maximum no of patients (43.3%) approximately half of the patients were between the age group of 21- 40 years and above 61 years there no is greatly reduced , so that piles are seen in most active phase of life.
- Majority of the patients about 66.6% are very much conscious about their disease and take earlier treatment within five years of chronicity, 20% patient consults their doctor between 6 to 10 years of chronicity.
- The patients with *Vataja Prakriti* were common sufferer of the diseases than *Kaphaja* and *Pittaja*, *Raktaja Prakriti* patients were only 10% bleeding was present in 53.4% cases, History of other anorectal disease was present only 13.4% patients and in 86.6% cases history of such diseases was absent.
- 63.4% patients were suffering from internal piles and 30% from external piles very less number of patients was affecting both externointernal piles.
- There is no more impact of veg or non veg diet on the piles patients almost incidence of piles is equal in vegetarian and non vegetarian patients.
- Between Hindu and Muslim population the Hindu are more sufferer form piles than Muslims.
- In 30 patients, total no. of 60 piles masses were diagnosed which were treated by kshar sutra ligation where the clock wise position of pile mass was, 23 pile mass present at 11 'o' clock position so the common position of piles, 18 at 7 'o' clock position and just one fourth 15 at 3 'o' clock position and rare at 5 'o' clock position. So in right superior haemorrhoidal plexus total 41 piles treated. The incidences of pile are less on left side in superior haemorrhoidal plexus.
- One pile mass lighted in 13 patients and two piles mass in 6.3 piles mass in 9 and 4 piles in two admitted in the hospital for 1 to 2 days. During the post operative period few patients complained mild discomfort within 12 hours of ligation like mild burning sensation pain. After that patient were strictly prohibited to avoid long sitting on hard , bed strenuous works, sexual indulgences, two wheeler vehicles, non veg, spicy, fatty diet, during treatment period, till the wound healed up completely, Negligence of these instruction may lead to complications like pain, bleeding, which may be aggravated.
- All 30 patient followed up compel when wound was completely healed up and visited the OPD clinic for regular post operative review for 3-8 months.
- The average recovery time in 30 patients was 25 days the average cutting time of pile mass was 7.6 days and healing time was 17.39 days. Thus total time 25 days. (4 weeks) is required for complete cure of the piles by kshar sutra ligation.
- The result, compared to modern operative technique the haemorrhoidectomy which needs complete recovery time for 4 to 6 weeks and post operative complication like bleeding, anal fissure, and stricture and recurrence are common.
- In cryosurgery at least 50% cases suffer post operatively foul and serous discharge and non healing ulcer for 7-9 week.
- In elastic band ligation, secondary hemorrhage is main complication and in photocoagulation recurrences of pile are common.

- So in this view the average recovery time is 1-2 weeks less and complication like bleeding recurrences are extremely rare with high cure rate from kshar sutra ligation of pills.
- During follow up study for 3 -8 month the patient were asked to attend the OPD clinic to review for monthly and two monthly for 4 to 8 month . Not a single patient presented any type of bleeding protrusion of mass, pain or discharge at anal outlet. It could be concluded that kshar sutra treatment (ligation of pile) is highly successful, easy to apply, complete ambulatory, and most convenient to the patient, He remains active during post operative treatment period and post operative complications are very rare.
- Thus the result of *kshar sutra* ligation in piles is excellent say 100% in very less no of cases

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