



## Research Article

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### EFFICACY OF PAPAYA TANKAN KSHAR SUTRA IN RECTAL POLYP: A CASE STUDY

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#### ABSTRACT

Ayurveda is the science of life. The art and science of surgery protects the patients from localized disease primarily. The best surgeon is he who can distinguish the possible from impossible. A 9 years old female patient attended Shalya O.P.D. with the complaints of bleeding through anal region and some mass like structure come out during defecation which return after defecation. It was provisionally diagnosed as the case of rectal polyp. Kshar Sutra therapy<sup>7</sup> was done in rectal polyp to avoid the allopathic surgical complications. In this case study Papaya-Tankan Kshar Sutra was used to treat rectal polyp, which cured and demolished the symptoms.

**Keywords:** Rectal polyp, kshar sutra, Shalya

#### INTRODUCTION

Health is one such precious possession, wisdom and art. Strength and wealth, are of no use if health is lacking. Experience is of the utmost value but limits are imposed upon medical skill. At present Kshar sutra is a very popular and highly practiced treatment modality for the management of haemorrhoids, fistula- in- ano, chronic fissure-in-ano with tags, anal warts, pilonoidal sinus, rectal polyps etc. Acharya Sushruta<sup>1</sup> also describe Kshar sutra application in different diseases like arsha, nadi vrana, bhagandara in ancient time. But role of Kshar sutra in anorectal condition like rectal polyp is not described in ayurvedic books. Any surgical or para surgical procedure involving Kshar can be taken as Kshar Karma. According to Acharya Charaka<sup>2</sup>, Kshar is one of the three-fold treatment in Shashtra Pranidhana. Thus, Kshar Karma has been considered as an important procedure in Ayurvedic Pharmacopeia. The important Ayurvedic surgical text, Sushruta Samhita<sup>3</sup> has dedicated a separate Adhyaaya on Kshar Karma, named Ksharapaka Vidhi Adhyaaya. Acharya Sushruta has narrated Kshar as an Anushastra, Upanyantra, Agropaharaneeya and one of the Upakrama for Vrana.

#### Case Study

A 9 years old female reported to the surgery O.P.D. (RCUAU/RD2015-102) at Rishikul Campus, Uttarakhand Ayurveda University, Haridwar, Uttarakhand with complaints of bleeding through anal region and some mass like structure come out during defecation which return back after defecation in January 2015. According to her parents she was alright before 6 years. Initially her digestive system was not good and she passes hard stool. After few weeks bleeding also occurs during defecation. Patient taken some allopathic medicine from local doctor and bleeding stops. After three years, again bleeding occurs and this time with blood something mass like structure come during defecation. Patient again take allopathic medicine and bleeding stop. Bleeding on and off occurs. After this, patient

came in Rishikul Campus, Uttarakhand Ayurveda University, Haridwar, Uttarakhand for management.

After digital rectal examination and proctoscopy, the diagnosis was rectal polyp. Before planning treatment, Patient was assessed for fitness for anaesthesia and surgery. Patient was put in lithotomy position in O.T. table. Under local anaesthesia rectal polyp was held with Babcock forceps and pulled outside the anal region and then gently held in hands. It was ligated with Papaya-Tankan Kshar Sutra and tied at stalk base of polyp and placed back into anal region under full aseptic measures. For Histopathological examination sample of polyp was taken during procedure. Complete haemostasis was checked by inserting a plain lubricated gauze piece in the anal canal. After this, antiseptic dressing was applied to the anal region and tied with the help of T-bandage and patient was shifted to the Shalya ward for post-operative management. The ligated polyp mass get necrosed and shed off spontaneously on 4<sup>th</sup> day leaving behind a raw surface which healed gradually in next one week.

Papaya-Tankan Kshar Sutra was made through Papain powder, (it is made through drying unripe papaya fruit juice through Dryer oven up to maximum 100°C temperature.) papaya pulp, Tankan Kshar & Haridra.

#### RESULTS AND DISCUSSION

The ligated polyp mass shed off spontaneously and the remaining wound healed without any complications. Histopathological examination report showed that the polyp was of benign origin. No adverse effects were observed during the course of study and management. Kshar Sutra works as excision as well as healing of operated site. According to Acharya Sushruta, Kshar<sup>4</sup> is the substance that expel out the Dushta Tvak, Mamsa etc. by its Ksharana action. Acharya Dalhana comments that the substance which does Shodhana of the Dosha, Dhatu, Mala, etc. by its Ksharana action is known as Kshar. There were some problems

coming in the way while preparing conventional Snuhi-Apamarga Kshar Sutra<sup>5</sup>. For example, Snuhi Ksheer requires a specific season and time for collection. Snuhi Ksheer is not preserve for a long period of time. During Kshar Sutra therapy patients suffers some discomfort due to presence of Apamarg Kshar & Snuhi ksheer like pain, burning sensation, inflammation and itching. Therefore, in this case study, Snuhi ksheer has been replaced by Papaya Pulp and Apamarg kshar has been replaced by Tankan kshar. Papaya pulp can be preserved at the normal temperature & it is easily available in all seasons. Its fruit<sup>6</sup> is Pittashamak; Vranaropana (wound healer), Shothahara (anti-inflammatory), Vednasthapana (analgesic), Krimighna (anti-bacterial), Raktshodhak (blood purifier). Carica papaya have different ingredients which have various medicinal properties in which Papain enzyme is main component. Some other chemical

constituents of Papaya include:- Alkaloid like Carpaine, Pseudocarpaine & Carpinine; Proteolytic enzymes Chymopapaine & Carpaine; Vitamins like A, C & E; Minerals like Mg & Zn. These chemical constituents<sup>7,8</sup> act as debriding agent, anti-inflammatory, analgesic effect, anti-microbial, wound healing. Tankan kshar works as local antiseptic<sup>9</sup>. Local application on wound stops bleeding, due to its vasoconstriction action. In this case study the best response was seen in reduction of Burning Sensation and Pain after ligation of Papaya-Tankan Kshar sutra. It provides radical cure of rectal polyp with negligible recurrence rate as evident by regular follow-up visits by the patient after completion of therapy. In this case, no sign and symptom of recurrence was ever found out.



Figure 1: Case of Rectal Polyp (Rishikul Campus, Uttarakhand Ayurved University, Haridwar)



Figure 2: Case of Rectal Polyp during Surgery (Rishikul Campus, Uttarakhand Ayurved University, Haridwar)



Figure 3: Case of Rectal Polyp after healing (Rishikul Campus, Uttarakhand Ayurved University, Haridwar)

## CONCLUSION

Kshar sutra in anorectal disorders has shown miraculous effects and now it is a precious gem in the crown of Shalya Tantra. We have very less references regarding utility of Papaya and Tankan kshar in preparation of kshar sutra, infact we can say both these rarely mingled in each other. Early ambulation of patient even after the procedure is possible as it is a minimal invasive procedure. Damage of sphincter and soft tissues in anal region does not occurs. Papaya-Tankan Kshar sutra acts by gradual excision of the rectal polyp with simultaneous healing. It is economically low cost and less discomfort occurs. The best response was seen in reduction of Burning Sensation and Pain after ligation of Papaya-Tankan Kshar sutra.

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