

The Easiest Way to Insert Ksharsutra with the Help of an Infant Feeding Tube Instead of a Metallic Probe

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Abstract Ksharsutra is a popular treatment modality in India for the management of fistula-in-ano. It works by the action of excision, scraping, draining, penetrating, debridement, and sclerosing as well as healing simultaneously without a surgical excision. The conventional method to insert a ksharsutra by using a metallic probe through an external opening may cause pain and discomfort to the patients. In some cases, this intervention is not possible without general anaesthesia. The ksharsutra may be inserted through an external opening by using an infant feeding tube (no. 5 or 6) without causing pain as a day care procedure.

Keywords Ksharsutra · Metallic probe · Infant feeding tube · Fistula-in-ano

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Introduction

Sushruta explained the role of surgical excision and use of ksharsutra for the management of anal fistula for the first time in 500 BC. Ksharsutra therapy for the management of fistula-in-ano is being practised in India with high success rate (recurrence of 3.33% only) [1]. Ksharsutra therapy showed least recurrence (5.88%) [2]. Surgical treatment of anal fistula requires hospitalization, regional or general anaesthesia, and regular post-operative care and is associated with a significant risk of recurrence (0.7–26.5%). It is associated with high risk of impaired continence (5–40%) [3]. In most of the centre method of inserting, the ksharsutra is by using a metallic probe. This not only is a painful procedure but is more prone to cause an iatrogenic fistulous tract and impaired continence and sometimes requires general anaesthesia. These disadvantages lead to low compliance and low acceptability by many patients. Our institute is an upcoming medical centre where I joined as a surgical consultant at the time of its inception. Lack of any surgical equipment was a limiting factor during our initial days. For patients with fistula-in-ano, I started to insert the ksharsutra with the help of an infant feeding tube. We observed that this method is more acceptable, is less painful, and does not require anaesthesia.

Operative Technique/Surgical Procedure

Although the gold standard technique to insert the ksharsutra is through an external opening by using a metallic probe to negotiate the fistulous tract as well as to find out the internal opening, we can use an infant feeding tube (no. 5 or 6) for inserting the ksharsutra. The patient is kept in a left lateral position in a private environment with a good source of light. Copious amount of 2% xylocaine jelly is applied over the

external opening as well as over the entire infant feeding tube. A partial cut 1–2 cm distal to the tip of the infant feeding tube (Fig. 1) to make an indentation is made. Once an indentation is made at the insertion side of the infant feeding tube, this side of the tube is inserted through the external opening. The infant feeding tube is pushed passively and negotiated through the fistulous tract. The internal opening is finally located, and the tube is taken out through it using the index finger. Once the indented end of the infant feeding tube comes out through the internal opening, the ksharsutra is tied at the indentation (towards the internal opening) and then pulled through the other end (Fig. 2). Finally, both ends of the ksharsutra are tied and the infant feeding tube removed. We can also insert a smaller size infant feeding tube by bending it in a folded manner (Fig. 3). Once it comes out through the internal opening, the ksharsutra is tied at the bending end. In this way, we can insert the ksharsutra with the help of the infant feeding tube, causing minimal trauma and less agony to the patient.

Benefit of Using an Infant Feeding Tube Instead of a Metallic Probe

1. Patient having minimal pain.
2. An infant feeding tube is more malleable than a probe, making it very easy to negotiate through the anal canal with the index finger.
3. Can be performed without anaesthesia.
4. Easy availability of the infant feeding tube from a medicine shop even at the community level.
5. No chance of making a false/iatrogenic tract.
6. No tissue reaction with an infant feeding tube.
7. Patient acceptability is much better than that with a metallic probe.

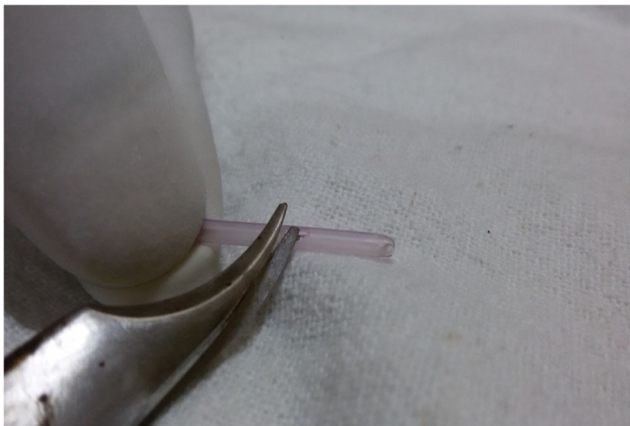


Fig. 1 Indentation is being made at the tip of an infant feeding tube

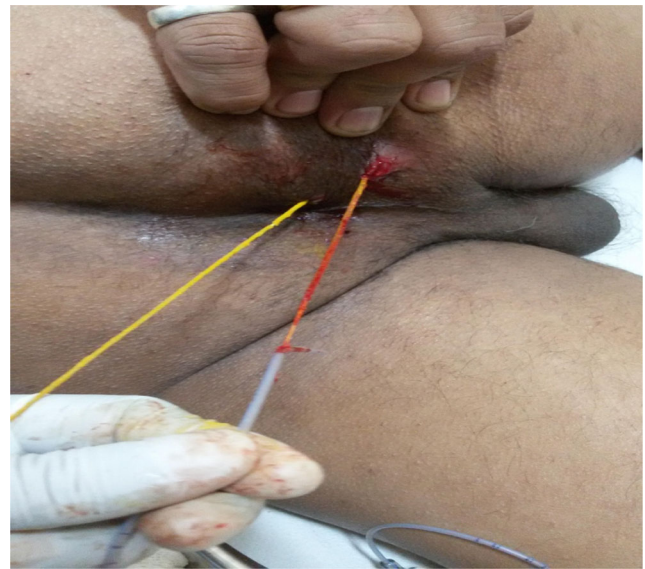


Fig. 2 Tied ksharasutra at the tip of an infant feeding tube is being pulled

Demerits

1. Cannot be reused for the next patient.

Discussion

Worldwide, the conventional treatment for fistula-in-ano is complete excision of the fistulous tract. But in India, since 500 BC as per reference of Sushruta Samhita, an ancient Indian surgical text, ksharsutra treatment for fistula-in-ano is being practised [2]. In ksharasutra treatment, the chance of having anal continence is almost nil [4] as compared to conventional surgery. The rate of recurrence of disease in ksharsutra therapy is 3.33% [1] as compared to conventional surgery where it is reported to be up to 26.5%. Because of this beauty, ICMR and CCIM are taking lots of efforts to propagate this ksharsutra technique, but the main hurdle is its global acceptability.



Fig. 3 Infant feeding tube is inserted through an external opening after bending it to tie the ksharasutra at the bending end

The ksharsutra practice is limited to very few centres in India because metallic probes and ksharsutra are not available in every part of this country. There is no uniformity and standardization in probe design. There is always fear of complication because of doubtful sterilization of metallic probes. The present metallic probe, though malleable, is quite hard and not user-friendly, so there remains the possibility of iatrogenic injury to inner structures, false tract formation, and possibility of slippage and contamination of ksharsutra during the procedure [5]. The gold standard method to insert the ksharsutra through the external opening of the fistula-in-ano is by using a metallic probe. Joining as a surgical consultant at our institute at its very inception, I found it indeed difficult to find a metallic probe to treat fistula-in-ano with an ever increasing patient load. It came up to me to devise this new technique using an infant feeding tube to treat fistula-in-ano as per the discussed procedure above. It is an ideal method to insert the ksharsutra in a new hospital, in the lack of a metallic probe, and mostly for geriatric patients having comorbidities. No systemic side effects are encountered with this method, although local irritation, burning sensation, mild pain, itching, and slight indurations are observed, which rarely need medication. Post-operative damage and scarring are minimal. This method of inserting the ksharsutra with the help of an infant feeding tube is most appropriate for healing fistulous tracts. It offers an effective, ambulatory, and safe alternative in patients with fistula-in-ano. To overcome all the limitations related to metallic probes, I have invented the idea to use an infant feeding tube instead of a metallic probe, which is disposable, non-traumatic, acceptable, and easily available everywhere. The use of infant feeding tubes is truly more acceptable, less painful, and time conserving and will be useful in the globalization of the ksharsutra procedure for the ablation of fistula-in-ano [5].

Conclusion

Ksharsutra insertion with the help of an infant feeding tube instead of a metallic probe for the treatment of fistula-in-ano is safe, less painful, and more acceptable, and has no chance of developing an iatrogenic fistulous tract. This novel technique using an infant feeding tube helped us to avoid the use of a metallic probe and involved minimal tissue handling, thus increasing patient acceptability. It has helped to make the treatment of fistula-in-ano using ksharsutra a day care procedure, reducing the overall burden to our healthcare system.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

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