



AN INTRODUCTION TO MATERIALS AND METHODS OF *SEEVANA KARMA* W.S.R. TO SUTURING

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ABSTRACT

Acharya Sushruta explains the surgical procedures under eight categories which are called the *Ashtavidha Shastra karma*. These are *Chedana*, *Bhedana*, *Lekhana*, *Vyadhana*, *Eshana*, *Aharana*, *Visravana* and *Seevana*. Acharya Sushruta explains in depth about the materials and methods of *seevana karma* including the *purvakarma*, *pradhana karma* and *pashchat karma*. *Seevana* can be correlated to suturing in modern day surgery. Sutures are used to close a wound from injury or surgery faster and with minimal scar. They are commonly used on skin, internal tissue (muscle, fascia), organs and blood vessels. Based on the type of wound, location and depth- different materials are used like glue, staples, thread of natural or synthetic origin. In this article a attempt has been made to compare the materials and methods described in Ayurveda classics (*Sushruta Samhita*) with the Suturing materials and methods being practiced today. Discussion and conclusions are drawn from the same.

KEYWORDS: *Seevana karma*, Suturing, Suture materials, Types of *Suchi* (Needles), Types of *Seevana* (Suture patterns).

INTRODUCTION

Acharya Sushruta explains the surgical procedures under eight categories which are called the *Ashtavidha Shastra karma*. These are *Chedana*, *Bhedana*, *Lekhana*, *Vyadhana*, *Eshana*, *Aharana*, *Visravana* and *Seevana*.^[1] *Seevana* is indicated in *meda samuttha vrana*, *Bhinna vrana*, *sadyovrana*, *sulikhita gada*, diseases in the *chala sandhi*.^[2] *Seevana* is contra indicated in *kshara agni dagda vrana*, *marutavahi vrana* and when there is *antah-shalya*.^[3] Acharya Sushruta explains in depth about the materials and methods of *seevana karma* including the *purvakarma*, *pradhana karma* and *pashchat karma*. *Seevana* can be correlated to suturing in modern day surgery. Sutures are used to close a wound from injury or surgery faster and with minimal scar. They are commonly used on skin, internal tissue (muscle, fascia), organs and blood vessels. Based on the type of wound, location and depth- different materials are used like glue, staples, thread of natural or synthetic origin.

MATERIALS AND METHODS

Acharya sushruta has enlisted a set of natural materials which can be used for *seevana karma*^[4] like-

- *Sookshma sutra*,

- *Sutra* made out of *Valkala* of *Ashmantaka*,
- *Sutra* made from *kshouma*(silk)
- Thin strand of *snayu*, *baala*(hair)
- *Murva/Guduchi taana*

Three kinds of *Suchi* are described according to the site^[5]-

- *Vrutta*(Round) and Two *angula* long *suchi* for *alpamamsa* and *sandhi pradesha*.
- *Ayata* and three *angula* long for *mamsala pradesha*.
- *Dhanurvakra* (semi-circular) in *marma pradesha*, *phalakosha*, *udaropari*.

Patterns of *Seevana*^[6]

- *Vellitaka*
- *Gophanika*
- *Tunnasevani*
- *Rujugranthi*

Method of *Seevana*^[7]

- *Na Atidoora*- to avoid *Ruja*
- *Na Nikrushta*- to avoid *Avalunchana*

Suturing

Suture materials is of two types-

- I. Absorbable- Natural (Chromic Catgut) and Synthetic (Vicryl)
- II. Non Absorbable- Natural (Silk) and Synthetic (Prolene, Nylon)

Selection of Suture materials is based on many factors like-

1. Tissue reaction
2. Extent of infection
3. Absorption (required or not, if required absorption rate)
4. Ease of handling
5. Tensile strength
6. Rate of healing

To reduce wound infection suture material coated with antimicrobial agents are developed.

Methods of Suturing-

1. Continous
2. Interrupted
3. Mattress
4. Subcuticular/buried
5. Blanket/Buttonhole

DISCUSSION AND CONCLUSION

Acharya Sushruta explained the concept, materials, methods, indications, contra-indications of *Seevana karma*. *Seevana* can be correlated to suturing in modern day surgery. Some Patterns of *Seevana* can be compared to suture patterns- like *vellitaka*- continous, *Gophanika*-Blanket/Buttonhole, *Rujugranthi*- Interrupted, *Tunnasevani*- Subcuticular. Some of Classical suture materials are in use even today like silk, *Snayu* mentioned in classics is comparable to catgut which also is of animal origin. Suture material which is more homologous to the body tissue with less adverse reactions, reduced chances of infection of the wound, better handling, better tensile strength for the knots to be tied well are the need of hour.

REFERENCES

1. Acharya Yadavji Trivikramji. Sushruta Sahmita of Sushruta with Nibandhasangraha commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasacharya on Nidana Sthana. Varanasi: Choukambha Orientalia; Reprint 2014. Sutra Sthana Chapter 5, verse 5. p19.
2. Acharya Yadavji Trivikramji. Sushruta Sahmita of Sushruta with Nibandhasangraha commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasacharya on Nidana Sthana. Varanasi: Choukambha Orientalia; Reprint 2014. Sutra Sthana chapter 25, verse 16. p118
3. Acharya Yadavji Trivikramji. Sushruta Sahmita of Sushruta with Nibandhasangraha commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasacharya on Nidana Sthana. Varanasi: Choukambha Orientalia; Reprint 2014. Sutra Sthana chapter 25, verse 17. p118.
4. Acharya Yadavji Trivikramji. Sushruta Sahmita of Sushruta with Nibandhasangraha commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasacharya on Nidana Sthana. Varanasi: Choukambha Orientalia; Reprint 2014. Sutra Sthana chapter 25, verse 20-21. p118-19.
5. Acharya Yadavji Trivikramji. Sushruta Sahmita of Sushruta with Nibandhasangraha commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasacharya on Nidana Sthana. Varanasi: Choukambha Orientalia; Reprint 2014. Sutra Sthana chapter 25, verse 23-24. p119.
6. Acharya Yadavji Trivikramji. Sushruta Sahmita of Sushruta with Nibandhasangraha commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasacharya on Nidana Sthana. Varanasi: Choukambha Orientalia; Reprint 2014. Sutra Sthana chapter 25, verse 22. p119.
7. Acharya Yadavji Trivikramji. Sushruta Sahmita of Sushruta with Nibandhasangraha commentary of Dalhanacharya and Nyayachandrika Panjika of Gayadasacharya on Nidana Sthana. Varanasi: Choukambha Orientalia; Reprint 2014. Sutra Sthana chapter 25, verse 25-26. p119.