APPLICATION OF SUCHI VYADHANA IN THE TREATMENT OF
NAKHAPINDITA RAKTA (SUB UNGUAL HAEMATOMA)

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ABSTRACT
Surgery is the art of tomy and ectomy. Tomy means to cut and ectomy means to cut and remove. As we all know that Susruta is the father of surgery and an ancient rhinoplastic surgeon. He has advocated various simple to complicated surgeries including cancer and various plastic surgeries. We do present here a very simple but extremely painful condition known as Nakhapindita Rakta, also known as Sub ungual Haematoma. A Subungual hematoma is a collection of blood (hematoma) underneath the fingernail or toenail. In cases of acute traumatic injury, domestic accidental injuries such haematoma can occur and lead to tremendous painful situation. But with the help of simple suchi vyadhana karma we can relief the pain which cannot be relieved by a potent analgesic.

KEY WORDS: Nakhapindita Rakta, Rhinoplastic surgeon, Subungulal Haematoma, Suchi vyadhana karma etc.

INTRODUCTION
A Subungual haematoma is a collection of blood (haematoma) underneath the fingernail or toenail. Here, Sub means Below, Ungual means Nail, haematoma means collection of blood in the soft tissue and raised towards the surface. It is often an extremely painful condition, although otherwise it is not a serious medical condition. It is sometimes known as runner's toe or tennis toe. Subungual haematomas are common nail bed injuries caused by blunt or sharp trauma to the fingers or toes.\[1\] Bleeding from the rich vascular nail bed results in increased pressure under the nail and can cause significant discomfort.\[2\] Subungual haematoma drainage, also known as nail bed trephination, can be performed to relieve this discomfort.\[3\]
Before we move to the details of it, we must have a good understanding of the Anatomy of the nail known. Otherwise we cannot properly perform the Suchi vyadhan karma.

ANATOMY
The nail is an integral component of the digital tip. It is a highly adaptable tool that protects the fingertip, contributes to tactile sensation by acting as a counterforce to the fingertip pad and aids in peripheral thermoregulation via glomus bodies in the nail bed and matrix.\[^{4,5}\]

Because of its form and functionality, abnormalities of the nail unit result in functional and cosmetic issues. The structures that define and produce the nail (nail plate) include the matrix (sterile and germinal), the proximal nail fold, the eponychium, the paronychium and the hyponychium. Collectively, the nail bed (sterile matrix), nail fold, eponychium, paronychium, and hyponychium are referred to as the perionychium. The nail plate emerges from the proximal nail fold and is bordered on either side by the lateral nail folds (paronychium). The nail plate is composed of hard, keratinized, squamous cells that are loosely adherent to germinal matrix but strongly attached to the sterile matrix.\[^2\] The nail fold, the most proximal aspect of the perionychium, is composed of a dorsal roof and a ventral floor. It is found approximately 15 mm distal to the distal interphalangeal joint (DIP).\[^{3,4}\]

The dorsal roof rests above the forming nail, and the ventral floor lies beneath the nail, immediately distal to the insertion of the extensor tendons. The ventral floor is the site of the germinal matrix and is responsible for 90% of nail production. The dorsal roof of the nail fold plays a role in housing cells that impart shine to the nail. The skin proximal to the nail that covers the nail fold is the eponychium. The tissue distal to the eponychium in contact with the nail represents the cuticle.

Extending from proximal to distal on the nail is a half-moon shaped white arc known as the lunula. The lunula is the distal extent of the germinal matrix.\[^4\] This characteristic color change is due to the persistence of nail cell nuclei in the germinal matrix; distal to this location, nuclei are absent, and the nail is transparent.\[^2\] The area of the nail bed distal to the lunula is the sterile matrix. This is a secondary site of nail production and is tightly adherent to the nail plate and the periosteum of the distal phalanx.

CAUSES
- Slamming the finger in a car door or house door.
- Hitting the finger with a heavy object eg. Hammer.
- Dropping a heavy object eg. dumbbell on the toe, stubbing the toe on a hard surface.
All these may be responsible for formation of an acute subungual haematoma formation.

**GROSS ANATOMY OF THE NAIL**

![Diagram of the nail structure]

**CLINICAL FEATURES**

i. There is severe throbbing pain sensation and due to this patient passes a sleepless night. No analgesic can give a potent pain killing action.

ii. A dark-colored discoloration (red, maroon, or purple-black) occurs under all or part of the affected nail. Sometimes fracture may also occur in the proximal phalanx.

iii. Tenderness and swelling of the tip of the affected finger or toe occurs.

![Image of a fingernail with discoloration]

**DIAGNOSIS (ROGA NIDANAM)**

1. Darshan (Inspection), Sparshan (Palpation), Prashna (Questionnaire)- These are the three golden thread of Diagnosis applicable in this case. Darshan is meant for taking a look at the condition, Sparshan for feeling the severity and Prashna for history of the cause.
2. In some situation Skiagraphy of the finger nail or toe AP/LAT view may be needed to exclude fracture phalynx.

TREATMENT WITH RAKTAMOKSHANA
प्रच्छानेनैकदेशस्यं गणितं जलजन्मभिः:
हरेच्छ्डुइगादिभिः सुप्तमसृग्व्यापऩ भशरा्यधैिः As.Hr.Su. 26/53

Here the treatment modality described by acharya Vagbhatta is: the condition should be relieved by Raktamokshana (suchi vyadh ). At the same time he has mentioned the guideline as to how and where to perfom this procedure [8]. Description is given below -

- **PRACCHANA** - Blood accumulated in any localized area- small area can be removed by Raktamokshana. (Trephination).
- **JALOUKA** - Blood accumulated in tumors, abscess can be removed by using Jalouka.
- **SHRUNGA and ALABU** - Blood that has produced loss of sensation at the site of accumulation, by using the sucking horn (Shrunga) etc. gourds or pot (Ghata).
- **SIRAVEDA** - Vitiated blood all over the body by Venesection.

**PROCEDURE OF PRACCHANA KARMA**

- In general, no Anesthesia is needed as nail has no pain sensation. Means we can easily perform Raktamokshana without anesthesia.
- Cleaning the injured digit for any dirt and debris must be done. It can help in prevention of infection.
- Raktamokshana – We should make one or two small holes in the nail with the help of a sterile needle (size 21/22).
• Then we need to apply digital pressure to ensure complete drainage of the haematoma and let out the blood.
• Anti Septic dressing by neem oil, bandage and collar sling (if severe throbbing pain) and Inj.Tetanus toxoid is directed.
• Patient should be advised to avoid bathing for that day only.
• Triphala guggulu 1 gm twice daily with luke warm water for 5 days may be taken.
• Apply dressing frequently.

COMPLICATIONS
Although there is a less significant chance of complication here, still we must be cautious for the following complications:
1. Nail loss
2. Nail deformity (associated with fracture)
3. Infection (Antibiotics may be required).

CONCLUSION
Nakhapindita rakta or subungual haematoma is an extremely painful condition. It is caused due to various traumatic injuries in the nail. Haematoma is collected beneath the nail bed. Common analgesics are unable to relieve pain from this condition. But a plain
Raktamokshana can provide significant relief from this agonizing situation. A simple suchi, few sterile instruments are sufficient enough to perform the raktamokshan. No Anesthesia is needed as nail has no pain sensation. Patient can go back home after completion of the procedure. Complications are rare to occur.

REFERENCES