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Unrevealing the Effects of *Agnikarma* in *Parikartik*a with special reference to Fissure -in -Ano: A Case Series

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ABSTRACT:

Agnikarma, being the pain-relieving panacea practised now a days with benefits of treating the disease in a satisfactory way, thereby preventing its recurrence is adopted as the main line of management in treating the Anal fissures. This study aims to evaluate the potential benefits of *Agnikarma* in combination with manual anal dilatation and sentinel tag excision if present, as a means of faster healing aiming no recurrence. This study included five patients with chronic anal fissures, with recurrences and unresponsive to oral and topical medications, who underwent *Agnikarma* combined with manual anal dilatation (MAD) and if sentinel tag present, excision of the same. Primary outcome measures encompassed fissure healing rates. With a mean follow up of 12 weeks, there was no postoperative complications, and the overall fissure healing rate was good. The combination of *Agnikarma* with Manual anal dilatation and sentinel tag if present, its excision proved to be an effective approach for Anal fissures, with favourable outcomes and without any complications.

KEYWORDS: *Agnikarma*, Fissure in ano, *Parikartika.*

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INTRODUCTION:

Parikartika is a clinical condition where occurs a tear in the anal verge during the time of forceful defecation. In literatures, it is mentioned as one among the *vyapat* (complication) of *virecana* and *niruha basti* [1-7] *Parikartika* can be correlated to anal fissure in contemporary science. Anal fissure is a tear or a split in the anoderm over the hypertrophied band of internal sphincters at the anal verge. [8-9] It is always located close to the midline of the anal canal; in men, 95% are near the posterior midline and 5% near the anterior midline, whereas in women about 80% are posterior and 20% anteriorly. It may occur probably due to various reasons

including lack of fibre rich diet, water intake, constipation, spastic anal sphincter, diarrhoea, complications of anorectal surgery. Pain which is severe in nature, present during and after defaecation is experienced by almost all the patients. The conservative management includes dietary recommendations, tub baths, topical applications and anal dilators. Surgical treatment for deep, chronic fissures with sentinel tag includes excision along with fissurectomy, sphincterotomy, and advanced flaps. Ayurveda putsforth the methods of management in an ideal way, which includes *tailapuranam(matrabasti)*, *varti prayoga*, *pichu*, *avagaha sweda*. Though it all has the good rates of healing; increased rate of recurrences is observed in clinical practice.

Agnikarma, being the pain-relieving panacea practised now a days with benefits of treating the disease in a more promising way, thereby preventing its recurrence is adopted as the main line of management in treating the Anal fissures which is the most painful condition among the anorectal disorders.

METHODS:

(i)**Patients Selection criteria**:

Consecutive patients diagnosed with chronic anal fissures visited Shalya Tantra OPD from June 2024 to August 2024, with the pain during and after defecation, bleeding per anum along with anal fissures characterised by fibrotic edges with or without sentinel tag and hypertrophied anal papilla.

Patients with linear ulcer due to inflammatory bowel disease, tuberculosis, syphilis, HIV and anal carcinoma were excluded from the study.

A total of 5 patients with non-healed anal fissures, which recurred on conservative management were selected for the *Agnikarma* with their consent.

(ii)**Surgical procedure**:

(A)*Purvakarma* (preoperative procedure):

1. Procedure explained to the patient and their relatives.
2. Informed written consent was taken.
3. Routine blood investigations (CBC, Hb, RBS, ESR, CT, BT, HIV, HBsAG) were done.
4. Injection TT (0.5 ml) intramuscularly administered
5. Injection xylocaine 2% without adrenaline (0.1ml) test dose administered intradermally.
6. Proctolysis enema administered.
7. Vitals recorded.

(B)*Pradhana karma* (operative procedure):

1. Patient was taken in lithotomy position
2. Under all aseptic precautions, painting and draping was done.
3. Manual anal dilatation was performed.
4. If present, sentinel tag or hypertrophied anal papilla was excised using electrocautery.
5. The fissure bed was curetted with Volkmann's scoop.
6. *Agnikarma* using *panchadhatu shalaka* was done throughout the edges and then base of the fissure.
7. *Samyak agnidagdha (mamsa dagdha) lakshanas*- site turns into pigeon grey color with reduced swelling & pain and also dried, constricted wound were observed. [10].
8. Haemostasis achieved.
9. *Matrabasti* with 10ml of *Jatyadhi grita was* done
10. Sterile dressing done.

CASE 1: A female patient of age 19 complained of mass per anum since 6 months; along with pain and burning sensation during defecation since 15 days. Also, reported that the episodes of pain and

burning sensation occured intermittently with slight bleeding per rectum.
Bowels- irregular once in 2 or 3 days; hard in consistency
On examination,

- Sentinel tag at 12 o'clock & 6 o' clock position
- Chronic fissure was present posteriorly at 6 o' clock position
- No active bleeding
- Mild tenderness was present
- P/R – sphincter tone- spasm +

Figure 1(A). **Case 1** – chronic fissure with sentinel tag, sentinel tag excised using electrocautery

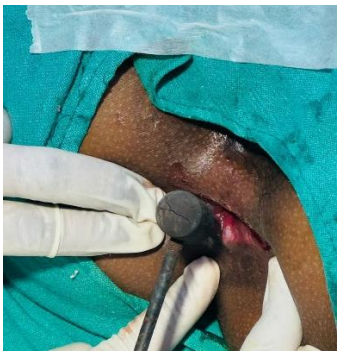

Figure 1(B).A*gnikarma* to the fissure bed followed by tag excision

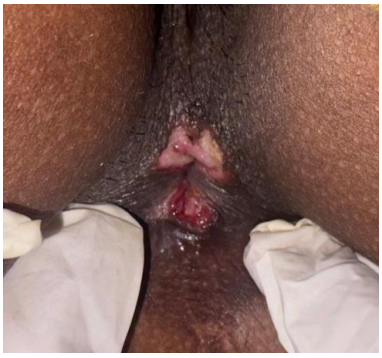

Figure 1(C). POD 2

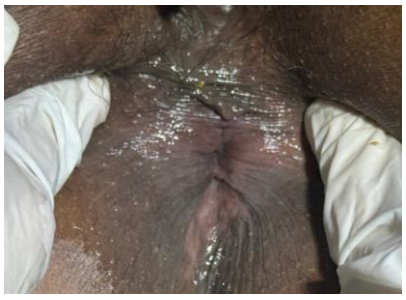

Figure 1(D).POD 10- surgical wound & fissure healed

CASE 2: A male patient of age 44 complained of bleeding per rectum since 15 days along with burning sensation during and after defecation , which persists for 20- 30 minutes.
Bowels- regular once daily; hard in consistency
On examination,

- acute on chronic fissure was present posteriorly
- tenderness- present
- active bleeding- present
- P/R- sphincter tone- spasm +

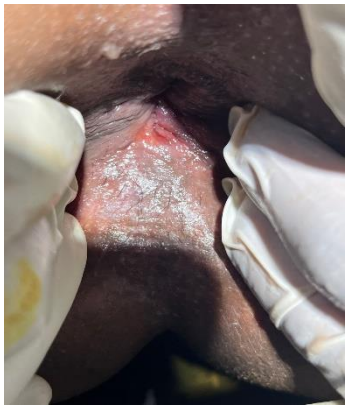

Figure 2(A). **Case 2-** acute on chronic fissure

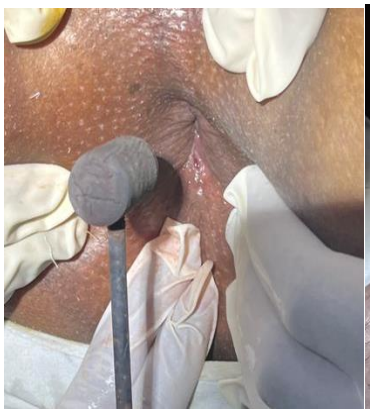

Figure2(B). *Agnikarma* using *panchadhatu shalaka*

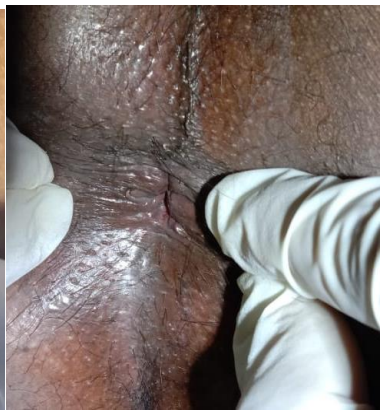

Figure 2(C). POD 5

CASE 3: A female patient of age 46 complained of pain and burning sensation during defecation, which persisted for 1 hour after defecation since10 days. Also, mild bleeding per rectum during defecation. She reported that the complains was recurring once or twice in a month whenever the bowels were hard.

Bowels- regular once daily with laxatives. Hard intermittently

On examination,

- Acute on chronic fissure at 12 o' clock position
- Active bleeding was present
- Tenderness- present
- P/R-Sphincter tone- spasm+

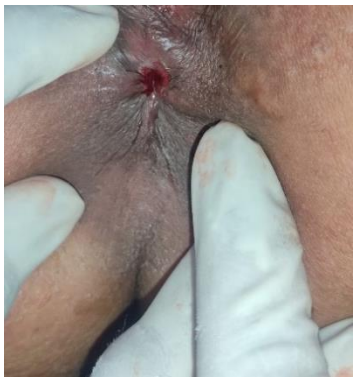

Figure 3(A). **Case 3-** chronic fissure

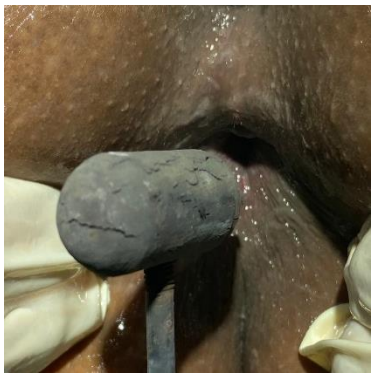

Figure 3(B). *Agnikarma* for fissure bed

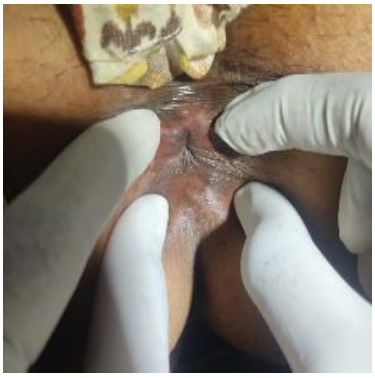

Figure 3(C). POD 10

CASE 4: A female patient of age 23 complained of mass per anum since 1 year. Also, pain and burning sensation during defecation that aggravated since 20 days. She had reported that complains were recurring occassionally since 2 years.

Bowels- irregular once in 2 or 3 days ; hard in consistency

On examination;

- Sentinel tag with internal components at 11- 12 o' clock position
- Acute on Chronic fissure posteriorly at 6 o' clock position
- Tenderness was present at 6 o' clock position
- Active bleeding was observed
- P/R- sphincter tone- mild spasm

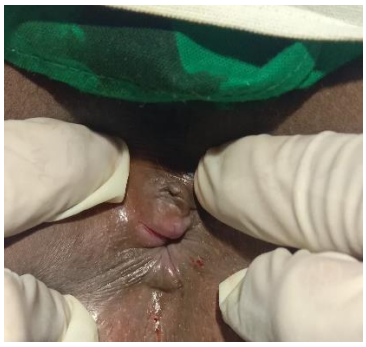

Figure 4(A). **Case 4**- recurrent fissure with sentinel tag

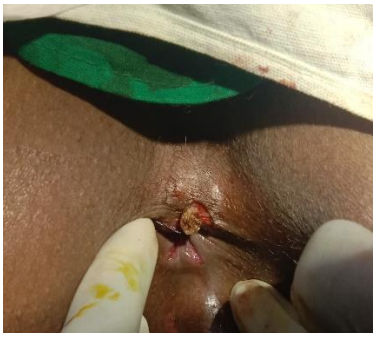

Figure 4(B). sentinel tag ligated using vicryl 3-0

Figure 4(C). *Agnikarma* for fissure bed

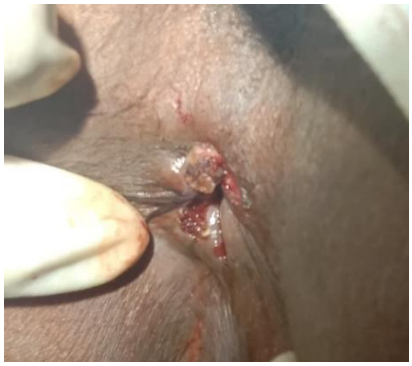

Figure 4(D). immediately after *agnikarma*

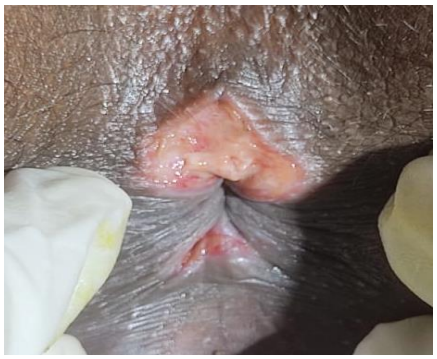

Figure 4(E). Post op day 5

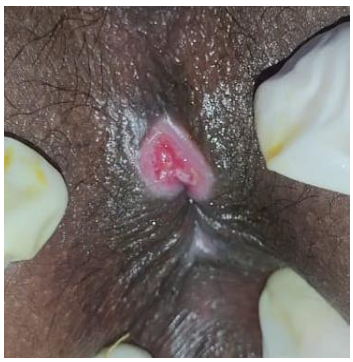

Figure 4(F). POD 10. Posterior fissure healed

CASE 5: A male patient of age 27 complains of pain and burning sensation during defecation, that persisted for ½ hour after defecation since 1 month. Also, mild bleeding during defecation since 3 days. He underwent *jatyadhi tailapooranam* for 7 days and found relief. But the complaints recurred within a week.

Bowels- regular and normal in consistency with mild laxatives.

On examination;

- External haemorrhoids at 11 and 7 o' clock position.
- Chronic fissure at 6 o' clock position.
- Tenderness – mild
- Active Bleeding was present

- P/R- sphincter – mild spasm

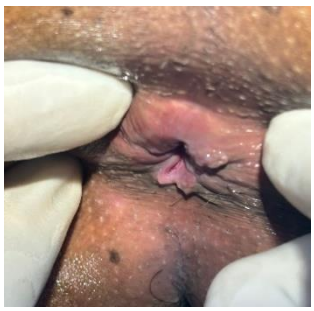

Figure 5(A). **Case 5**- Recurrent Chronic fissure

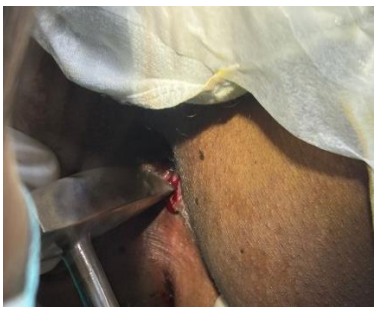

Figure 5(B). *Agnikarma* for posterior fissure

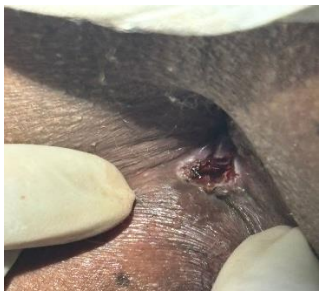

Figure 5(C). Immediately after *Agnikarma*

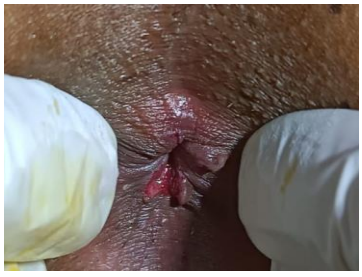

Figure 5(D). POD 1

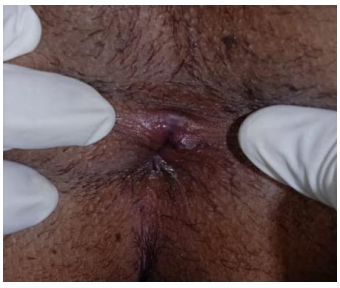

Figure 5(E).POD 10

(C)*Paschat karma* (post-operative procedure):

1. Sitz bath with *panchavalkala kwatham* twice daily for 20 mins.
2. The *dagdha vrana*(Wound) dressing with sterile gauze impregnated with *jatyadhi grita* until wound heals completely .
3. *Avipatikara churnam* –5 to 10 grams in 50 to 100 ml of water after dinner.
4. Fibre rich diet-cucumber, ladies finger,carrot, beetroot, leafy greens guava, chikoo, pomegranate, pears,chickpeas,green gram, whole wheat.

(iii)Assessment and follow up:

Evaluated using improvement based on grades of symptoms. The primary outcomes were resolution of pain and bleeding and wound healing confirmed on physical examination, while postoperative complications and recurrence were recorded. Follow up conducted until the wound healed completely.

Subjective parameters:

- Bleeding
- Burning sensation

Objective parameters:

- Tenderness
- Wound(fissure) healing
- Sphincter tone[11]

Table 1- showing the clinical features of the patients

Subjects	Tenderness	Bleeding	Burning sensation	Hypertrophied anal papillae	Sphincter spasm
Case-1	+	-	+	+	+
Case-2	+	+	+	-	+
Case-3	+	+	+	-	+
Case-4	+	+	+	+	+
Case-5	+	+	+	+	+

Table-2: Scoring of sphincter tone

Resting score	Feature
0	No discernable tone at rest, an open or patulous anal canal
1	Very low tone
2	Mildly decreased tone
3	Normal
4	Elevated tone, snug
5	Very high tone, a tight anal canal, difficult to insert a finger

Table -3: Showing the Results Based on Parameters

S.no	Features	Before treatment					After treatment (10^{th} day)				
1	Tenderness	G3	G2	G2	G3	G3	G0	G0	G0	G0	G0
2	Bleeding	G0	G1	G1	G1	G1	G0	G0	G0	G0	G0
3	Burning sensation	G3	G2	G2	G3	G3	G0	G0	G0	G0	G0
4	Sphincter tone	G4	G5	G4	G4	G4	G3	G3	G3	G3	G3

Table- 4: Showing The Results Based on Physical Findings

S. no	Case 1	Case 2	Case 3	Case 4	Case 5
Physical examination Findings- Before treatment	• Posterior chronic fissure • Active bleeding	• Posterior fissure with sentinel tag at 6 o' clock position • Active bleeding	• Anterior chronic fissure • Active bleeding	• Sentinel tag anteriorly at 12 o' clock position • Fissure posteriorly at 6 o' clock • Active bleeding	• Posterior fissure at 6 o' clock • Active bleeding
After treatment	• Fissure healed • No bleeding	• Fissure healed • No bleeding	• Fissure healed • No bleeding	• Fissure healed • No bleeding	• Fissure healed • No bleeding

RESULTS:

This study revealed the significant results, as *Agnikarma* is better than minor surgical procedures in terms of pain relief and healing time. However, *Agnikarma* was highlighted for its minimal invasiveness and lower complication rates with lesser rates of recurrence[12]

Long-term follow-ups have indicated that patients treated with *Agnikarma* experienced no recurrences of fissures compared to those who underwent traditional procedures like *tailapooranam*, *gudavarti*, *pichu* and surgical procedures like AD (anal dilatation), sphincterotomy[13-14]. The findings point out the potential of *Agnikarma* as a viable long-term treatment option for managing recurrent and chronic fissure (*Parikartika*)

DISCUSSION:

The mechanism of action involves several physiological and pathological processes that facilitate healing and pain relief.

Mechanism of Action

1. **Thermal Injury and Tissue Repair:**

Agnikarma involves the application of a heated instrument to the affected area, causing controlled thermal injury to the tissue. This thermal injury stimulates a localized inflammatory response, which is essential for healing. The heat promotes:

- Vasodilation: Increased blood flow to the area enhances the delivery of immune cells and nutrients, facilitating the healing process.
- Collagen Formation: The heat stimulates fibroblast activity, leading to increased collagen synthesis, which is crucial for tissue repair and regeneration[15]

2. **Reduction of Sphincter Spasm:**

Chronic anal fissures are often associated with sphincter spasm, which exacerbates pain and hinders healing. The application of heat through *Agnikarma* can help:

- Relax the Sphincter Muscles: The thermal effect reduces muscle tension, alleviating the spasm and allowing for easier bowel movements, which is critical for healing fissures[16-17].

3. **Pain Relief:**

The heat from *Agnikarma* has analgesic properties. It acts on the nerve endings in the area, leading to:

- Desensitization: The application of heat can reduce the sensitivity of nociceptive pathways, thereby decreasing the perception of pain associated with fissures.

4. **Destruction of Pathological Tissue:**

In cases where chronic fissures are accompanied by unhealthy tissue or granulation, *Agnikarma* can effectively:

- Cauterize Unhealthy Tissue: The thermal effect helps in the destruction of pathological tissue, promoting the formation of healthy granulation tissue.

5. **Stimulation of Healing Pathways:**

The heat generated during *Agnikarma* may also activate various biochemical pathways that promote healing, including:

- Release of Growth Factors: The inflammatory response can lead to the release of growth factors that further enhance tissue repair and regeneration.
- Modulation of Cytokines: Heat application influences the cytokine environment, which can help in regulating inflammation and promoting healing[18].

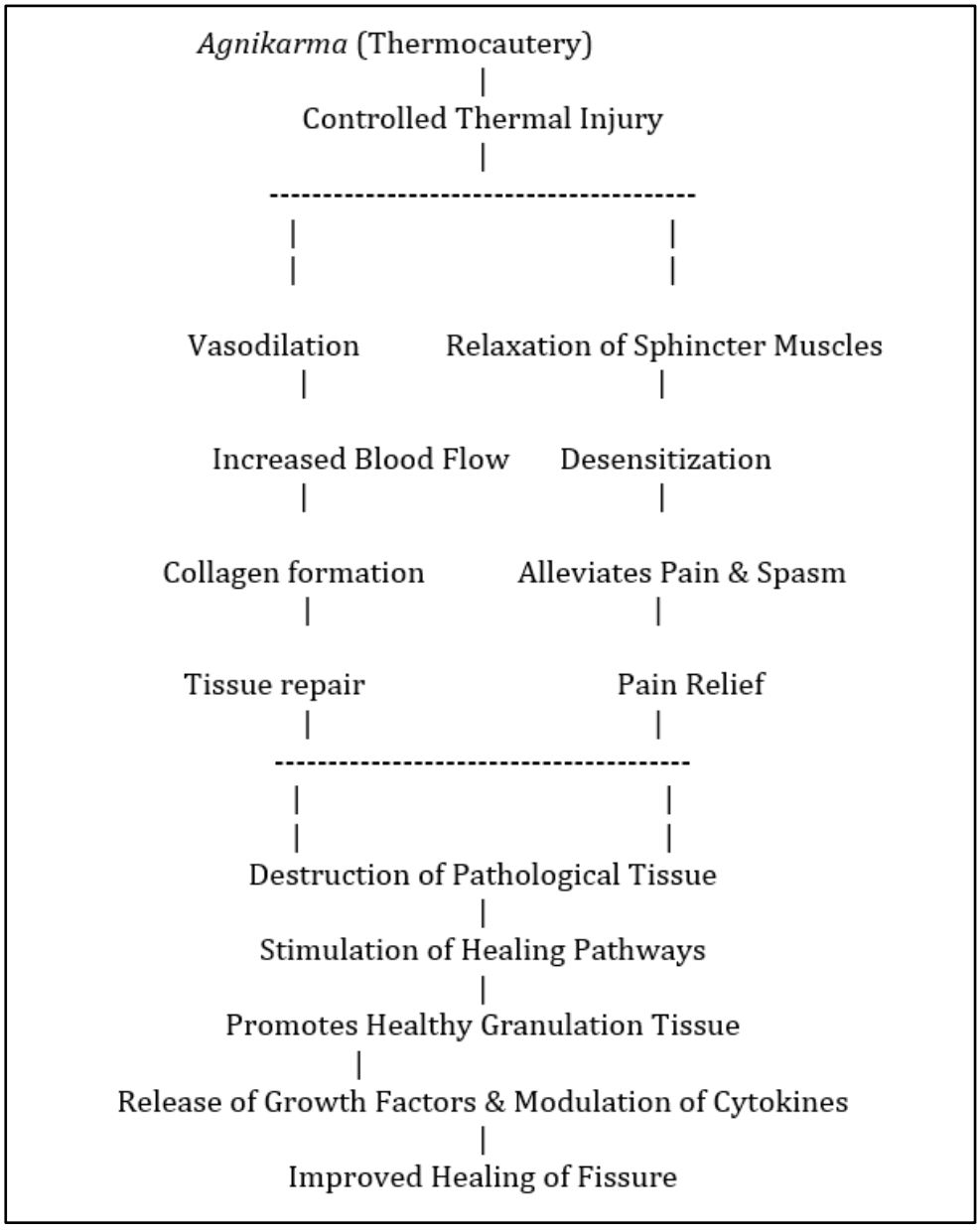

Figure 6- Probable Mechanism of *Agnikarma* in *Parikartika*

CONCLUSION:

Agnikarma using the *shalaka* made of *panchadhatu* (metals- *tamra*(copper), *loha*(iron), *yashada*(zinc), *rajata*(silver), *vanga*(tin)) in 4:3:1:1:1 ratio contributes to wound healing through various mechanisms, enhancing cellular functions such as proliferation, migration, and differentiation underscoring their importance in traditional and modern wound management strategies. The integration of *Agnikarma* into treatment protocols for fissure in Ano reflects its enduring relevance in contemporary Ayurvedic practice.

Declaration of patient consent:

Informed written consent was taken before the treatment and informed consent was taken from the patients, provided that the images will be published for case study.

Conflict of interest: The author declares that there is no conflict of interest.

Guarantor*:* The corresponding author is the guarantor of this article and its contents.

Source of support: None

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https://doi.org/10.70805/ija-care.v8i4.644

REFERENCES:

1. Priya Vrat Sharma. Susrutha Samhita Chikitsa sthana 34/22. Chaukhambha Vishvabharati publications, Varanasi:2018.Pp 597
2. Priya Vrat Sharma . Susrutha Samhita Chikitsa sthana 36/36. Chaukhambha Vishvabharati publications, Varanasi:2018.Pp 613
3. Priya Vrat Sharma . Charaka Samhita Siddhi sthana 6/29. Chaukhambha Vishvabharati publications, Varanasi:2014.Pp 625
4. Priya Vrat Sharma . Charaka Samhita Siddhi sthana 7/5. Chaukhambha Vishvabharati publications, Varanasi:2018.Pp 632
5. Priya Vrat Sharma . Charaka Samhita Chikitsa sthana 19/5. Chaukhambha Vishvabharati publications, Varanasi:2014.Pp 320
6. Kanjiv lochan . Ashtangahrdayam Kalpa sthana 3/15-16. Chaukhambha Sanskrit Sansthan publications, Varanasi:2018.Pp 505
7. Kanjiv lochan . Ashtangahrdayam Nidana sthana 8/23. Chaukhambha Sanskrit Sansthan publications, Varanasi:2018.Pp 71
8. Norman Williams, Ronan O'Cornell P, Andrew W Mc Caskie. Bailey and love's Short Practice of Surgery , Disorders of Rectum and Anal canal. CRC Press Tayler and Francis Group publications, 28th edition, Reprint 2023,pp 1427.
9. Rajgopal Shenoy K. Manipal Manual of Surgery. Disorders od Rectum and Anal canal . CBS publications, 2nd edition Reprint 2005,pp 532.
10. Priya Vrat Sharma . Susrutha Samhita Sutra sthana 12/8. Chaukhambha Vishvabharati publications, Varanasi:2018.Pp 126.
11. Orkin BA, Sinykin SB, Lloyd PC. The digital rectal examination scoring system (DRESS). Dis Colon Rectum. Pubmed 2010 Dec;53(12):1656-60.
12. Priya Vrat Sharma. Susrutha Samhita Sutra sthana 12/3. Chaukhambha Vishvabharati publications, Varanasi: 2018.Pp 124.
13. Giuseppe Brisinda, Valeria Fico, Giuseppe Tropeano, Gaia Altieri, Maria Michela Chiarello, Effectiveness and safety of botulinum toxin injection in the treatment of recurrent anal fissure following lateral internal sphincterotomy: cohort study, *BJS Open*. 2024;8(1): 693-700.
14. Asefa, Z., Awedew, A.F. Comparing closed versus open lateral internal sphincterotomy for management of chronic anal fissure: systematic review and meta-analysis of randomised control trials. *Sci Rep* **13 2023**, 13(1): 20957.
15. Shalu mol S , Benedict P, Sivakumar C S. Review on agnikarma and its probable mode of action. IAMJ 2023; 10(9):2478-85.
16. Manoj Patil. Role of Agnikarma in Pain Management. International Journal of Modern Pharmaceutical Research. 2024; 8(9):60-62
17. Rabinarayanan Tripathy, Shaithya Raj, Rajeshwari P N,Athulya , Lakshmy C Senan. A Review on the Action of Agnikarma. International Journal of Current Research 2016;8(6):32319-22
18. Vaikhari Dhurve, Ananta Karale. Role of agnikarma for pain relief in various diseases- a review article. IJIMS 2024:12(1): 47-55.