

Role of *Triphala Kwath Prakshalan* During and After Laparoscopic Drainage of Liver Abscess: An Integrative Ayurvedic Approach

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Abstract

Liver abscess is a potentially serious intra-abdominal infection requiring timely diagnosis and appropriate antimicrobial therapy with drainage when indicated. Laparoscopic drainage provides effective source control in selected patients while postoperative wound care remains important for preventing local infection and promoting healing. Ayurveda describes inflammatory and suppurative conditions under the broader conceptual framework of *Vidradhi*, with emphasis on appropriate evacuation of pus, cleansing of the affected site and restoration of tissue healthy. *Triphala Kwath Prakshalan*- cleansing or irrigation using a decoction of *Triphala* may provide an integrative local wound care approach following surgical drainage.

Keywords: Liver Abscess, Laparoscopic Drainage, *Triphala Kwath Prakshalan*, Integrative Medicine, *Vidradhi*

Introduction

Liver abscess is a localized collection of infected material within hepatic parenchyma. It may be pyogenic, amoebic, fungal or of other etiology and its clinical presentations can be range from fever and abdominal pain to systemic toxicity and sepsis. Appropriate treatment generally requires antimicrobial therapy and where indicated, drainage of the abscess cavity. Minimally invasive control in appropriately selected patient.

Despite successful drainage, postoperative management remains essential. The operative site and drainage wounds require appropriate cleansing, monitoring and infection prevention. The management of surgical wound is particularly important in

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patients with ongoing contamination, discharge, inflammation or delayed tissue repair.

Ayurveda provides a comprehensive framework for understanding inflammatory and suppurative condition. The condition *Vidhradhi* is described as a painful, inflammatory swelling that may progress through stages and eventually undergo suppuration. According to Sushruta Samhita the concept of *Yakrit Vidhradhi* (hepatic abscess) and *Prakshalana* (therapeutic irrigation) have been described in the management of suppurative condition.

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Liver abscess can be correlated with *Yakrit Vidradhi* (*Abhyantar Vidradhi* - *Adhisthan Vishesh*) in Ayurveda.

The fruits of *Haritaki* (*Terminalia chebula.*), *Vibhitaki* (*Terminalia bellirica*), and *Amalaki* (*Phyllanthus emblica*) are combined to make *Triphala*, a traditional Ayurvedic remedy. Traditionally, it has been said to have healing, balancing, and purifying qualities. *Triphala Kwath Prakshalan* may be regarded as an adjunctive procedure in certain wound-care settings when prepared as a decoction and used for local cleansing under suitable clinical supervision.

The present case described the integrative management of a 39 year old male with liver abscess who underwent laparoscopic drainage and received during and after *Triphala Kwath Prakshalan* and radiological recovery.

Case Report

Patient Information

A 39-year-old male presented with complaints of pain in the upper abdomen, predominantly in the epigastric region, intermittent fever, loss of appetite (anorexia), and generalized weakness for the past four months. On admission, the patient's general condition was stable, and there was no significant past medical or surgical history. Clinical examination, laboratory investigations, and radiological imaging confirmed the diagnosis of a liver abscess. After thorough evaluation, the patient underwent laparoscopic drainage of the liver abscess. As an adjunct to standard surgical and postoperative management, *Triphala Kwath Prakshalan* was performed for local wound irrigation and postoperative wound care as part of an integrative Ayurvedic approach.

Investigations

Table1. Baseline Laboratory Investigations (28 April 2026)

Investigation	Result	Interpretation
Hemoglobin	12.7 g/dL	Normal
Total Leukocyte Count	19,200/cu.mm	Increased
Platelet Count	1.61 lakh/cu.mm	Normal
Total Bilirubin	1.1 mg/dL	Normal
SGPT (ALT)	1482 IU/L	Markedly Increased
SGOT (AST)	841.6 IU/L	Markedly Increased
Total Protein	5.86 g/dL	Decreased
Serum Albumin	3.23 g/dL	Decreased
Kidney Function Test	Within Normal Limits	Normal
HBsAg	Non-reactive	Negative
Anti-HCV	Non-reactive	Negative
HIV I & II	Non-reactive	Negative

Table2. Personal History

Parameter	Findings
Diet	Mixed
Appetite	Decreased
Bowel Habits	Satisfactory
Sleep	Disturbed
Addiction	Alcohol consumption

Table3. Radiological Findings

Investigation	Findings
Ultrasonography April 2026)	(27 Partially liquefied liver abscess involving the caudate lobe with an estimated volume of 115 cc.

Therapeutic Intervention

The patient underwent laparoscopic drainage of liver abscess under appropriate anesthesia and surgical precautions.

The procedure involved:

1. Identification of the abscess cavity
2. Controlled drainage of the purulent collection
3. Irrigation and clearance of abscess cavity with *Triphala Kwath*

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4. Placement of a drain where clinically indicated and for further clearance of cavity by *Triphala Kwath*

5. Postoperative monitoring and standard medical management.

The patient received standard postoperative treatment including

- Appropriate antimicrobial therapy as indicated
- Fluid and nutritional support
- Monitoring of vital signs and systemic infection
- Drain management and assessment of discharge
- Routine postoperative wound care
- Postoperative irrigation of abscess cavity by *Triphala Kwath* for seven day two times in a day.



Laparoscopic Drainage of Pus



Triphala Kwath



Triphala Kwath Prakshalana



Drain inside Cavity

Ayurvedic Intervention: *Triphala Kwath Prakshalan*

Triphala Kwath possesses Shothahara (anti-inflammatory), Shodhan (wound cleansing), Ropana (wound healing) and antimicrobial supportive properties.

Triphala is a classical combination of three medicinal fruits. Traditionally, the three ingredients are considered to possess complementary properties.

Haritaki

Haritaki is traditionally described as having cleansing and balancing properties. It is widely used in Ayurvedic formulations directed toward elimination, digestion, and tissue support.

Vibhitaki

Vibhitaki is traditionally used in formulations associated with cleansing and tissue support. Its inclusion in Triphala contributes to the combined therapeutic profile of the formulation.

Amalaki

Amalaki is traditionally regarded as a rejuvenative and tissue-supportive drug. It is also valued for its antioxidant potential and its role in maintaining tissue health.

The combined use of these three drugs forms the basis of Triphala. In the context of local wound care, the decoction may theoretically contribute to cleansing and maintenance of the local wound environment.

However, the present case report does not establish the specific mechanism by which Triphala Kwath may have contributed to the patient's recovery. The complete outcome must be interpreted in the context of combined treatment, including surgical drainage, antimicrobial therapy, and routine postoperative care.

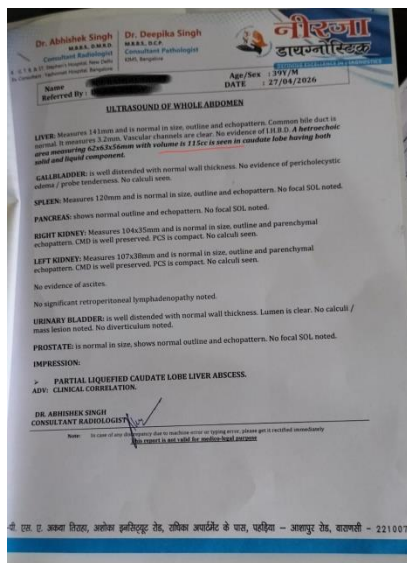
Preparation of Triphala Kwath

In the present case, ***Triphala Kwath*** was prepared freshly in-house under aseptic conditions. A total of **250 g of coarse Triphala powder (Kashaya Churna)** was mixed with **1 L of potable water** and boiled over a high flame until the volume was reduced to approximately **250 mL**. The decoction was then filtered through a sterile muslin cloth to remove particulate matter and allowed to cool to **body temperature (approximately 37°C)**. The prepared Triphala Kwath was subsequently drawn into a sterile syringe and used for irrigation (*Prakshalan*) of the postoperative drainage site under aseptic precautions.

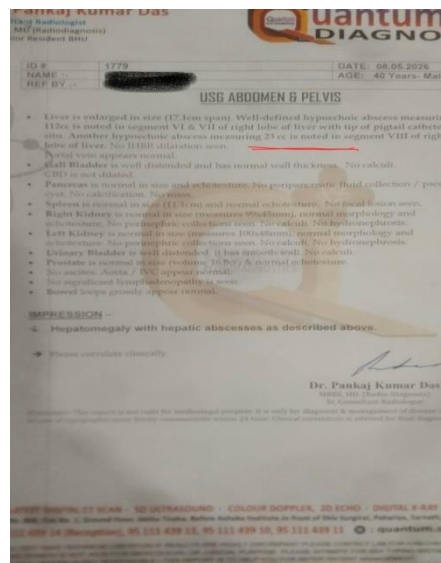
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Outcome and Follow up

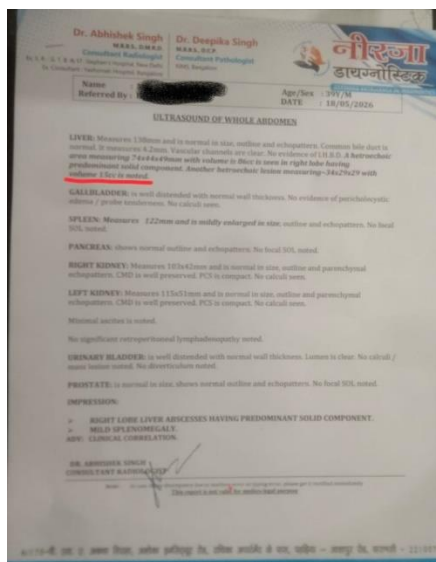
During the follow-up period, the patient showed progressive clinical improvement with complete resolution of presenting symptoms. No significant postoperative complications or adverse events were observed. Follow-up radiological evaluation demonstrated healthy healing of the abscess cavity without evidence of residual collection or recurrence. The patient's overall clinical condition remained stable, and he continued to do well at the one-month follow-up visit.



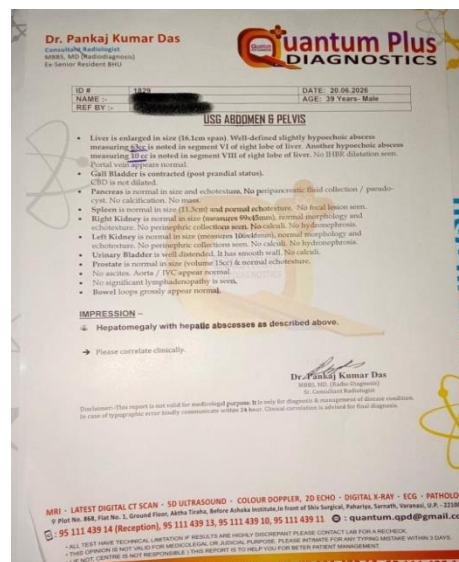
27/04/26(115cc) before treatment



08/05/26(23cc)



18/5/26(15cc)



20/06/26(10cc)

Discussion

Clinical Significance

Liver abscess is a potentially life-threatening condition that requires timely diagnosis, effective source control, and appropriate antimicrobial therapy to prevent serious complications. In the present case, successful management was achieved through an integrative approach combining laparoscopic surgical drainage with ***Triphala Kwath Prakshalan*** as an adjunctive postoperative cavity irrigation procedure. This case demonstrates the feasibility of incorporating an Ayurvedic local therapeutic intervention alongside standard surgical management without compromising patient safety.

Comparison with Existing Literature

The current standard management of liver abscess includes systemic antibiotic therapy along with image-guided or surgical drainage, depending on the size, location, and complexity of the abscess. While the use of minimally invasive laparoscopic drainage is well established, there is limited published literature regarding the use of Ayurvedic intracavitary irrigation following laparoscopic drainage of a liver abscess. The present case contributes to the growing body of evidence supporting an integrative approach by demonstrating favorable clinical and radiological outcomes without any treatment-related adverse events.

Treatment Rationale and Mechanism of Action

Laparoscopic drainage provides effective evacuation of the purulent collection and establishes adequate source control, which is the cornerstone of liver abscess management. Following drainage, ***Triphala Kwath Prakshalan*** was used as an adjunctive irrigation therapy. Triphala, a classical Ayurvedic formulation consisting of *Haritaki* (*Terminalia chebula*), *Vibhitaki* (*Terminalia bellirica*), and *Amalaki* (*Phyllanthus emblica*), is traditionally described as possessing *Shodhana* (cleansing) and *Ropana* (wound-healing) properties. Local irrigation with Triphala Kwath may help reduce the local microbial burden, facilitate the removal of necrotic debris, and create a favorable environment for tissue repair. In addition, the documented antimicrobial, anti-inflammatory, antioxidant, and wound-healing properties of Triphala may contribute to healthy granulation tissue formation and accelerated cavity healing. However, these potential benefits should be considered supportive, as the successful outcome in this case resulted from comprehensive multidisciplinary management, including surgical

drainage and systemic antibiotic therapy.

Clinical Outcome

The patient demonstrated progressive clinical improvement following the procedure, with complete resolution of fever, abdominal pain, and constitutional symptoms. Laboratory investigations showed a significant reduction in inflammatory parameters during follow-up. No postoperative complications or treatment-related adverse events were observed. Follow-up radiological evaluation confirmed healthy healing of the abscess cavity without evidence of residual collection or recurrence. The patient remained clinically stable throughout the one-month follow-up period and experienced an uneventful recovery with a relatively short hospital stay.

Learning Points

This case highlights that an integrative management strategy combining laparoscopic drainage with ***Triphala Kwath Prakshalan*** is feasible and appeared safe in this patient. The use of *Triphala Kwath* as an adjunctive postoperative irrigation procedure may support local wound and cavity healing following surgical drainage. Nevertheless, the findings of a single case report cannot establish efficacy or causality. Well-designed prospective studies and randomized controlled trials are required to evaluate the safety, effectiveness, and standardization of this integrative therapeutic approach in the management of liver abscess.

Conclusion

Laparoscopic drainage combined with ***Triphala Kwath Prakshalana*** yielded encouraging clinical outcomes in the present case, suggesting that this integrative approach may serve as a promising adjunct in the management of liver abscess. The patient achieved complete clinical recovery without any postoperative complications or recurrence during the one-month follow-up period. The successful outcome indicates that the integration of Ayurvedic therapy with modern surgical management has the potential to enhance postoperative healing and recovery while adhering to established principles of surgical care. Although ultrasound-guided pigtail catheter drainage remains the preferred minimally invasive intervention in many cases, laparoscopic drainage offers distinct advantages in selected patients, particularly those with multiloculated, large, or difficult-to-access abscesses. However, laparoscopic drainage is still underutilized and should be encouraged in appropriately selected cases where surgical expertise and facilities are available. Careful attention should be paid to

achieving meticulous hemostasis during the procedure, and preoperative coagulation status, including prothrombin time (PT) and international normalized ratio (INR), should be assessed to minimize the risk of perioperative bleeding. As this report represents a single case, larger prospective studies and randomized controlled trials are warranted to establish the safety, efficacy, and standardization of *Triphala Kwath Prakshalana* as an adjunct to laparoscopic drainage in the management of liver abscess.

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