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PHYTO-AYURVEDIC INNOVATION: A PRELIMINARY EXPLORATION OF PICHA BASTI INCORPORATING HIBISCUS (ROSA SINENSIS) EXTRACT WITH EMPHASIS ON ITS MUCOSAL AND ANTICANCER POTENTIAL

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ABSTRACT

Pichā Basti, a classical Ayurvedic basti procedure known for its snigdha (unctuous) and mucilaginous properties, is traditionally used in managing colitis, irritable bowel syndrome (IBS), and other gut-related inflammatory disorders. Hibiscus rosa-sinensis (Japa Pushpa), though well-documented in Ayurvedic pharmacopoeia for its pitta-shamaka and vrana-ropana properties, has recently garnered attention for its anti-inflammatory, antioxidant, and anticancer bioactivity. This article proposes an integrative application of Hibiscus leaf and flower extract into the formulation of Pichā Basti, aiming to enhance mucosal protection and potentially provide chemopreventive benefits in chronic inflammatory states of the colon. The article discusses the phytochemical rationale, formulation method, preliminary observations, and relevance in modern Ayurvedic practice.

KEYWORDS: Picha Basti, Hibiscus rosa-sinensis, Japa Pushpa, Anticancer herbs, Gut inflammation, Ayurvedic innovation, colon detox, Basti karma.

INTRODUCTION

Pichā Basti is a subtype of Anuvasana Basti, characterized by its slimy (pichhila), unctuous, and mucosal-soothing properties, typically used for disorders involving aggravated Vata and inflamed mucosa. It utilizes a combination of sneha (oil), kalka (paste), and kwatha (decoction) to deliver active constituents directly to the colon.

Hibiscus rosa-sinensis, commonly known as Japa Pushpa, is recognized in Ayurvedic classics for its pitta-hara, rakta-shodhaka, and vrana-ropana effects. Modern pharmacology confirms the presence of flavonoids, polyphenols, and anthocyanins in Hibiscus, attributing to its antioxidant and anticancer activities. Studies have indicated that hibiscus extracts can inhibit cancer cell proliferation in colorectal, hepatic, and breast cancer lines through mechanisms like apoptosis induction and cell cycle arrest.

In this article, I propose a phyto-Ayurvedic innovation by incorporating Hibiscus extract into the classical Pichā Basti framework, thereby synergizing its mucosal healing and anticancer potentials for conditions such as ulcerative colitis, IBS, and possibly in pre-malignant or inflammatory bowel disease (IBD) scenarios.

MATERIALS AND METHODS

Selection of Ingredients

- Sneha (Base oil): Tila Taila (Sesame oil) – classically indicated for Vata disorders.
- Kalka (Paste): Yashtimadhu and Shatavari (classical mucosal support) – optional.
- Kwatha (Decoction): Hibiscus rosa-sinensis leaves and flowers, prepared fresh.
- Active Extract: Hydroalcoholic extract of Hibiscus (standardized to contain ≥10% total flavonoids).

Preparation of Hibiscus Decoction

- 25 gm of fresh Hibiscus leaves and flowers were washed, crushed, and boiled in 400 ml of distilled water until reduced to 100 ml.
- Filtered and cooled; 20 ml extract reserved for basti.

Pichā Basti Formulation

- Tila Taila – 40 ml
- Hibiscus extract – 20 ml
- Kalka (optional) – 5 gm Yashtimadhu
- Mixed to form a homogenous, warm, slimy mixture consistent with Pichā Basti characteristics.

Administration

- Administered in the left lateral position.
- Retention aimed for 30–45 minutes.

- No classical purva karma (such as snehana or virechana) was performed for pilot trials on healthy volunteers.

Pharmacological Rationale

Traditional Ayurvedic Perspective

- Hibiscus is pitta-shamaka, useful in raktapitta and vrana ropana, aligning with colon inflammation and ulcerations.
- Pichā Basti is indicated in Grahani, Atisara, and Arsha—conditions where mucosal integrity is compromised.

Modern Phytochemical Evidence

- Flavonoids (quercetin, gossypetin): anti-inflammatory, antioxidant
- Anthocyanins: free-radical scavengers
- Saponins and polyphenols: cytotoxic to colorectal cancer cells
- Mechanisms of Anticancer Activity:
  - Induction of apoptosis in colon cancer cell lines (via caspase pathways)
  - Downregulation of COX-2 and NF-kB
  - Inhibition of angiogenesis

A study by Chang et al. (2005) showed that Hibiscus sabdariffa extract caused apoptosis in human colorectal carcinoma cells in vitro, suggesting potent chemopreventive potential.

Preliminary Observations

A small group (n=4) of volunteers undergoing gut cleansing (without known pathology) reported:

- Improved bowel movements
- Milder bloating
- No adverse reactions
- Sensation of lightness and comfort post-Basti

This warrants controlled clinical trials in IBD or ulcerative colitis cases to explore therapeutic outcomes.

DISCUSSION

The integration of Hibiscus into Pichā Basti presents a novel opportunity to merge traditional gut-focused basti therapy with modern phytotherapeutic benefits. While classical Picha Basti

typically uses agents like Yashtimadhu or Shatavari for mucosal coating, Hibiscus adds antioxidant and potentially anticancer action—expanding its scope into pre-malignant gut conditions.

The delivery via rectal route also provides direct access to colon mucosa—ideal for anti-inflammatory and chemopreventive herbs.

CONCLUSION

Hibiscus rosa-sinensis-based Picha Basti represents a promising phyto-Ayurvedic innovation, potentially beneficial for colonic inflammation, mucosal healing, and chemoprevention. This preliminary model calls for controlled clinical trials and further pharmacological validation to confirm its efficacy and safety.

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