

## An Integrative Therapeutic Approach in the Management of Infective Impetigo: A Case Study

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### Abstract

Impetigo is a widespread and highly infectious bacterial disease that affects the superficial layer of the skin in children, with bullous and non-bullous clinical variants. It commonly involves exposed areas of the body, particularly the face, and may cause discomfort and cosmetic concern. This case report describes the integrative management of bullous impetigo in a 4-year-3-month-old male child who presented with fluid-filled bullous lesions over the upper lip associated with mild itching and watery discharge, without systemic symptoms such as fever. Based on clinical findings, a diagnosis of bullous impetigo was made. The patient was treated with an integrative approach combining Ayurvedic internal medications—Kamadudha Rasa, Gandhak Rasayana, and Patolkatukrohinyadi Kashaya—for a duration of 14 days, along with topical application of Clavara MF ointment. Significant clinical improvement was observed, with complete resolution of blisters, erythema, and discharge within the treatment period. No adverse drug reactions or recurrence were noted, and systemic examination remained normal throughout follow-up. This case highlights the potential role of integrative therapy combining Ayurveda and conventional topical treatment in the effective and safe management of pediatric impetigo, suggesting a holistic approach may be beneficial in dermatological infections in children.

**Key words :** Impetigo, Ayurvedic Management, Pitta.

**I**nfective impetigo, also called pyoderma, children, preschoolers, and young adults is the most frequent bacterial infection in young It usually happens more often during hot and humid

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summer months,<sup>1</sup> there are two classic forms of impetigo: nonbullous and bullous. Systematic reviews and global burden analyses estimate that more than 162 million children are affected at any given time, with the greatest concentration in tropical, low-income, and resource-constrained regions.<sup>2</sup>

Non-bullous impetigo, accounting for over 70% of cases, often begins on the face or injured skin. Triggered by insect bites, cuts, or infections, it starts as blisters that form yellowish crusts under 2 cm. It spreads via contact, causes mild itching, occasional lymph node swelling, and rarely systemic symptoms.<sup>4</sup>

Clinical microbiology literature consistently reports that Gram staining of fluid from early impetigo vesicles or bullae is a useful diagnostic tool. The smear typically reveals Gram-positive cocci, most commonly *Staphylococcus aureus* and/or *Streptococcus pyogenes*. Culturing also shows *Staphylococcus aureus*.<sup>6</sup>

*Case presentation :*

A 4 yr 3 months male child was brought in Khemdas hospital Kaumarbhritya OPD with parents and complaining of multiple blister formation on upper lips, reddish in colour, watery discharge & mild itching at the site on infection, child had no history of fever.

Weight: 14.26 kg  
Height: 98 cm  
Heart Rate (HR): 98/min  
Respiratory Rate (RR): 24/min  
Temperature (T): 97.4°F  
Systemic examination: normal

Skin inspection: bullous lesions on upper lips with redness, watery discharge, and mild itching.

*Diagnostic assessment :*

*According to Ayurveda :*

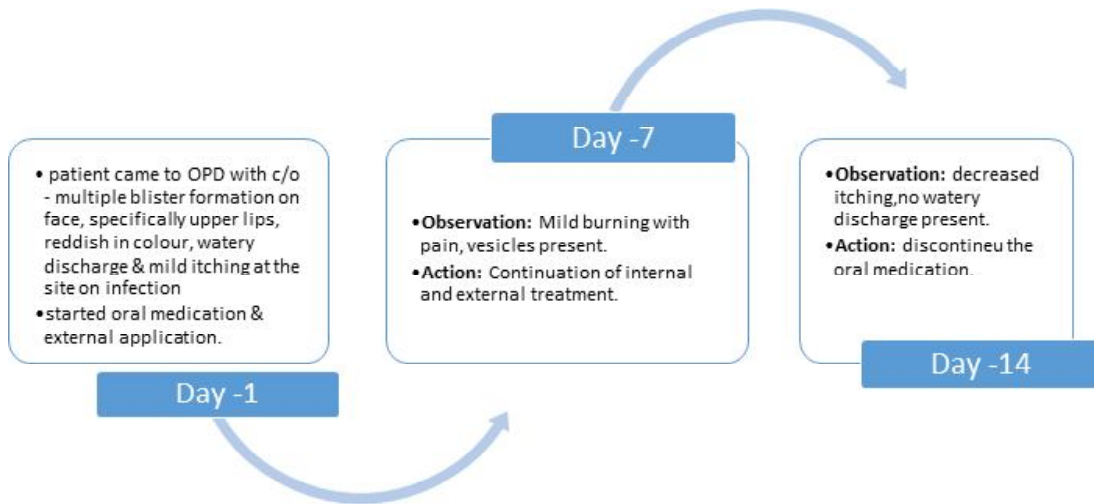
The condition shows an imbalance mainly in Pitta, with Kapha playing a supporting role. The problem is affecting the intermediate layer of the skin, known as Sveta Avastha. Because of this imbalance, the issue settles in the blood channels, leading to symptoms like redness and skin eruptions. These symptoms tend to develop and spread quickly. Based on traditional Ayurvedic principles like Dosha, Dushya, Srotas, and Lakshana, this condition is classified as Charmadala Kushta.

**Diagnosis :** Based on the observed clinical features, the child was diagnosed with non-bullous impetigo.<sup>7</sup>

**Intervention** – A shaman type of treatment was planned for this case

Table-1. intervention (medicinal treatment)

Day	Medication	Dose and time
Day 1 To Day 14	<b>Internal Medication –</b> <i>Kamdudha Rasa.125 mg</i> <i>Gandhak Rasayan 250 mg</i> <i>Patolkatukrohinyadi kashaya.</i> <b>External Application-</b> <i>Clavora mf</i>	1Tab (crushed) BD with water. 1Tab (crushed) BD with water. 5 ml BD with 40ml water.  Local application -Twice a day.

**Timeline-****Consent-**

Informed consent was obtained from

the parents for the use of their child's photographs for academic publication with identity concealed.



*Kamadudharasa*<sup>8</sup> is a classical Ayurvedic preparation which pacifies *Pitta dosha*. It is prepared from *Amalaki* juice, *Guduchi* extract, *Swarna gairika*, along with cow's ghee. Hydrolysable tannins present within *Amalaki* are known to exhibit antimicrobial,

anti-inflammatory, and immuno-modulatory actions. *Guduchi*, being rich in Saponins and triterpenoids, is antiviral, and it is especially useful for infections. *Swarna gairika* helps regulate metabolism and provides antioxidant therapy, making *Kamadudharasa* effective in

the Pitta imbalance conditions. *Gandhak Rasayana*<sup>5</sup> is used for diseases of the skin, mainly for acne and eczema. *Gandhak Rasayan* works in Skin infection by purifying blood, reducing Pitta-Rakta issues, and improving immunity. Its antimicrobial and anti-inflammatory properties help control infection, redness, and swelling. The antiparasitic action stops microbial growth.

*Patolkatukrohinyadi*<sup>9</sup> *Kashaya*, components in *Tikta Rasa* such as *Patola* and *Guduchi* decrease moisture content, purify blood, and decongest liver, thus curing skin infection related conditions very effectively. *Clavara mf* ointment<sup>4</sup> is highly effective in impetigo, acting against *Staphylococcus aureus* and *Streptococcus pyogenes*. It inhibits bacterial protein synthesis by blocking is leucyl-tRNA synthetase. Applied topically, it provides high local concentration, rapid healing, and reduced infectivity with minimal systemic effects. It prevents spread, complications.

Impetigo is a frequently encountered bacterial skin infection in the pediatric population, with the non-bullous form occurring more commonly than the bullous type. Early diagnosis and prompt treatment are essential to prevent spread and complications. In the presented case, an integrative approach combining Ayurvedic medicines such as *Kamadudha Rasa*, *Gandhak Rasayana*, *Patolkatukrohinyadi Kashaya*, along with topical mupirocin, showed effective results. The child demonstrated marked improvement in lesions without systemic involvement. Ayurvedic formulations helped in pacifying Pitta, purifying blood, and strengthening skin tissues, while *clavara mf*

provided targeted antibacterial action. Thus, a holistic approach ensures faster recovery, reduces recurrence, and restores skin health effectively in impetigo cases.

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