



## Arogyakalpadrumam's Insights into Shaka Roga's: A Comparative Analysis with Modern Medicine

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### ABSTRACT :

Arogyakalpadrumam, a renowned Ayurvedic text from Kerala, offers a unique chapter dedicated to Shakaroga, or diseases of the limbs. This comprehensive treatise, authored by Kaikulangara Rama Varier in 1832, provides valuable insights into the diagnosis and treatment of various pediatric limb conditions.

Unlike other Ayurvedic entities, Arogyakalpadrumam presents a distinct chapter solely focused on Shakaroga, highlighting its significance in Ayurvedic medicine. The text describes eight primary types of Shakaroga, each corresponding to specific modern medical conditions.

These conditions encompass a wide range of ailments, including infectious diseases (like impetigo and pyogenic flexor tenosynovitis), traumatic injuries (such as pachydermodactyly), and systemic disorders (like pyomyositis, nutritional deficiencies, and autoimmune diseases).

By examining the Ayurvedic descriptions of Shakaroga and comparing them to modern medical classifications, we can gain a deeper understanding of the ancient wisdom and practical applications of Ayurveda. Arogyakalpadrumam's comprehensive approach to treating limb diseases offers valuable insights for both healthcare practitioners and researchers.

**Key words** - Raktolbuda (Impetigo); Asrashopha (Pachydermodactyly); Gallaka (Pyogenic Flexor Tenosynovitis/Folliculitis); Kupaka (Pyomyositis); Ajagallaka (Phrynoderma); Indrerma (Dyshidrosis); Idhmaka (Sciatica); Dadhmika (Erythromelalgia); Shaka Roga's.

### Introduction:

Arogyakalpadrumam is a textbook of Ayurveda solely dedicated to pediatrics. After *kashyapa Samhita* it is the only text where, there is detailed description of *Bala chikitsa*. There are total 47 chapters in *Arogyakalpadrumam*. *Shakaroga chikitsa* is 27<sup>th</sup> chapter of it. *Shakarogs* refers to diseases of upper and lower limbs. In the human body four limbs are present- two lower limbs and two upper limbs. The diseases affecting to these four limbs are named as *Sakha Roga's*. The diseases of the limbs are mainly seen over the armpit (*Bahu Sandhi*), middle region of arms, above or below joints, palm, groins (*Vankshana*) thighs, below the knee joints and above ankle, over the heel and over the fingers. There are eight *Sakha Roga's* described along with their treatment and the causative factors under this is mainly the vitiation of *Vata*, *Kapha* and *Rakta*.

Uniquely, this chapter focuses on pediatric limb diseases, a topic not extensively covered in other Ayurvedic texts. The analysis aims to bridge the gap between traditional Ayurvedic knowledge and modern medical understanding.

### Aims and objectives

- Provide a comprehensive analysis of the "Shakaroga Chikitsa" chapter.
- Establish potential links between the described diseases and their modern counterparts.
- Highlight the value of this chapter in understanding pediatric limb conditions in Ayurveda.
- Encourage further research to integrate traditional and modern medical knowledge.

## Methodology:

1. The review will compare the diseases described in the *Arogyakalpadrumam* with their potential modern medical counterparts.
2. This comparison will be based on factors like:
  - Symptoms (closest in clinical presentation)
  - Environmental factors (occurrence during specific seasons or climates)
  - Treatment principles (Ayurvedic approaches vs. modern antibiotics, anti-inflammatory medications, or wound management)
3. It will categorize the diseases based on their modern understanding (infectious, traumatic, nutritional deficiency etc.).
4. The management approaches in the text, including medical, surgical, and panchakarma procedures will be discussed.
5. The potential rationale behind *Shirolepa* (medicated head paste) as a treatment route will be explored.
6. The review will conclude by emphasizing the importance of further research to bridge the knowledge gap regarding childhood limb diseases in Ayurveda.

## Shaka Roga's with their modern correlations:

### 1. *Raktolbuda & Impetigo*

*Raktolbuda* is a skin condition caused by an imbalance of the three doshas (*Vata*, *Kapha*, and *Rakta*). In this condition, vitiated *Kapha* and *Rakta* driven by *Vata* accumulate in the armpit area, forming a hard swelling that resembles a water bubble. This swelling is often accompanied by fever and a loss of appetite.[1]

**Impetigo** is a common infection of superficial layers of the epidermis that is highly contagious and mostly caused by gram -positive bacteria. It accounts for approximately 10% of skin complaints in the paediatric populations. It is most prevalent in children aged 2-5 years but can occur at any age. Impetigo is a disease of children who reside in hot humid climates. The peak incidence is during summer. The infection may be bullous and non-bullous. Bullous impetigo is more common in infants. Children younger than two years account for 90% of cases of bullous impetigo. Bullous impetigo begins with small vesicle that become flaccid bullae. The Bullae contain a clear or yellow fluid which eventually progresses to become purulent or dark. Surrounding erythema and edema are typically absent. Bullous impetigo does not form honey coloured crust. Lesions most commonly form in the intertriginous regions and on the trunk. (where two skin areas touch or rub together such as axilla of the arm, skin folds of the breasts and between digits) Systemic symptoms, such as fever are more common in non-bullous impetigo.

Treatment: Topical antibiotics alone in conjugation with systemic antibiotics are used to treat impetigo.[2]

Similarities between *Raktolbuda* and Bullous impetigo.

- a) Impetigo is a disease of hot humid climate and occurs during summer season. Kerala is classified as a tropical wet climate under Koppen classification system and warm and humid zone under Indian climatic map. So, impetigo and *raktolbuda* appear diseases of similar environment.
- b) *Raktolbuda* is a hard swelling which looks like water bubble accompanied by fever and restlessness. Bullous impetigo begins with small vesicle that become flaccid bullae. Fever is more common in bullous impetigo than non-bullous impetigo.
- c) Treatment of Impetigo is topical and systemic antibiotics to prevent infection once the vesicle ruptures while treatment of *Raktolubuda* is *Pittashamak* (*Kushtha*, *Yashti* etc *Dravyas*, *Jalokaavcharan* and *Vranaropaka* (*Khadira*, *Yashti* and *Triphala*) and *krimihara* (*Ketaki*, *Vidanga* etc). These ayurvedic managements effectively manage infections and their complications.

### 2. *Asrashopha & Pachydermodactyly*

A hard red coloured elevated and rounded swelling commonly appeared either in between *Mula Sandhi* and *Madhya Sandhi* of hands (Proximal and middle phalanx), without much elevation at the edges and deep in centre and the elbow joint or in the middle of the thigh is named as *Asrashopha* in the children.[3].

**Pachydermodactyly(PDD)**: Synovitis is the characteristic feature of inflammatory joint disease. If synovitis is localized in interphalangeal joint, rheumatoid arthritis, psoriatic arthritis, and juvenile idiopathic arthritis are among the most common differential diagnosis. The absence of pain, tenderness, and limitation of functions despite progressive swelling suggest an alternate diagnosis i.e. pachydermodactyly. Pachydermodactyly is an uncommon, benign form of superficial digital fibromatosis. Aetiology of pachydermodactyly is not fully understood but minor trauma is thought to be major contributing factor. There is abnormal deposition of collagen in dermis. It is characterized by asymptomatic, soft tissue swelling of proximal interphalangeal joints. Pachydermodactyly usually affects proximal interphalangeal joints symmetrically, involvement of distal interphalangeal joints or unilateral disease can also be seen. Swelling involves sides of finger and does not extend around the finger. Normal / negative laboratory test for arthritis. It is not associated with pain, morning stiffness which differentiates it from juvenile idiopathic arthritis and rheumatoid arthritis. Treatment: There is no effective treatment for pachydermodactyly. Avoidance of mechanical trauma may result in improvement. Intralesional corticosteroid injection and localized resection of subcutaneous tissue were reported to be effective.[4][5]

Similarities between *Asrasopha* & Pachydermodactyly:

- a) *Asrashopha* is a hard rounded swelling occurring between metacarpophalangeal joint and distal interphalangeal joint without much elevation at the edges and deep in the centre. Pachydermodactyly is benign form of superficial soft tissue swelling of proximal interphalangeal (PIP) joints.
- b) Treatment of pachydermodactyly is anti-inflammatory corticosteroid injection. Treatment of *Asrashopha* is *Vatashamaka* and *Shothahara* i.e. anti-inflammatory (*Bala*, *Saireyaka*, *Kana*, *Gaja Pippali* etc). These *Vatashamaka* and *Shothahara* treatment modalities effectively can manage infections and their complications.

### 3. *Gallaka* & Pyogenic flexor tenosynovitis and folliculitis

In the same area mentioned for *Asrasopha*, a swelling appears in the size of the *Karka* seed i.e. oval in shape and 25-46mm in size, reddish in colour with white colour eruptions like shape and size of *Shamyaka* seed. The presence of burning sensation, excess pain and fever also is accompanied. This disease is named as *Gallaka*. [6]

**Pyogenic flexor tenosynovitis:** Also known as septic or suppurative flexor tenosynovitis is a closed space infection of the flexor tendon sheath of hand and remains a challenging problem of realm of hand surgery. It can be caused by hematogenous spread but local inoculation via laceration, puncture wound and bites are common. [7] It accounts for 2.5 % to 9.5% of hand infections that can cause necrosis of the tendons and devitalization of fingers. This infection alters gliding mechanism and creates adhesions with the flexors tendon sheaths, resulting in marked loss of finger movements. Cardinal signs are flexor sheath tenderness, flexed position of affected digit and a painful passive digit extension. Fusiform swelling of digits follows above signs in later stages. [8]

Early treatment is crucial with intravenous antibiotics and surgical irrigation and debridement when appropriate. [9]

**Folliculitis** is a common, generally benign, skin condition in which hair follicle becomes infected/ inflamed and forms a pustule or erythematous papule of overlying hair covered skin. Most commonly, folliculitis is caused by bacterial infection of the superficial or deep hair follicle. Most commonly involved bacteria are staphylococcus aureus. Rash, Itching, burning skin, Pustule located over hair follicle, typically present over neck, armpit, or groin. Topical antiseptic, systemic antibiotics and incision and drainage are line of treatment. [10]

Similarities between *Gallaka* & Pyogenic flexor tenosynovitis and folliculitis

- a) *Gallaka* appears to be an inflammation of round to oval shaped 2.5 cm to 4.6 cm duration with pus point in it and having burning, pain, and fever. Fever indicates *Pitta* dominancy in Ayurved and pyogenic infection of modern science in Pyogenic flexor tenosynovitis and folliculitis.
- b) Treatment includes antimicrobial measurement in modern science and *Pittashamaka* (*Dhatri*, *Ushira*, *Madhuka* and *Mustaka* etc.) and *Vranopna* (*Daruharidra* and *Argavdha* etc) *Dravyas* in *Ayurveda*. The *Pittashamak* and *Vranaropana* treatment modalities effectively manage suppurative lesions and their complications.

### 4. *Kupaka* & Pyomyositis

The disease *Kupaka* can be diagnosed by the oedematous swelling with the elevated edge and depressed middle portion over the *Prishta* (Gluteal region). When the swelling becomes suppurated, it exudes pus and small pits will be seen over the site of infection. By this nature the disease is named as *Kupaka*. [11]

**Pyomyositis:** Kupa is a Sanskrit word for well. It means a deep hole full of water or oil. So, the diseases *Kupaka* means the inflammatory lesion which is deep seated and is filled with pus. It can be correlated to pyomyositis based on its site and clinical features.

Pyomyositis is a subacute purulent infection of the large skeletal muscles around pelvis and lower extremities. Peripheral muscles are rarely involved.

It shows peak incidence during July to October. It is common in the tropic i.e. constantly high temperature, but increasingly being reported world wide. It was first described by Japanese Surgeon Scriba in 1885. Staphylococcus aureus is the causative organism and trauma is the aggravating factors. The most common site of involvement was the hip and thigh. Although it is a rare disease. It should be considered in the differential diagnosis of immediate onset of musculoskeletal pain with limping and fever. It is often considered a disease of adolescents and young adults, although it occurs in all age groups including infants and children. It is more common in boys but girls having sports activities also have equal chances of having it. It has 3 stages. First stage involves painful muscle inflammation with mild leucocytosis, second stage involves abscess formation with severe pain, worsening of swelling and fever and third stage involves systemic toxicity and Septicemia, multiple abscess formation, scar formation and shock. Treatment includes antibiotics alone or with percutaneous aspiration. A surgical decompression may be required in 50% cases. [12]

Similarities between *Kupaka* & Pyomyositis

- a) *Kupaka* appears to be an inflammatory disease of muscular area with pus discharge and vessel or well like lesion site once the pus suppurates and leaves vessel like scar. Pyomyositis is also inflammatory pyogenic diseases of muscular area which ultimately leads to vessel scar formation.
- b) Treatment principles include antibiotics and percutaneous aspiration i.e. treatment of wound. Treatment of *Kupaka* is *Raktashodhaka* (*Sarivadi Gana*), *Vranaropaka* (*Yashti*, *Triphala* etc.) which is also treatment of wound. By using *Raktashodhaka* and *Vranaropaka* *Dravyas* suppurative lesions and their complications can be managed.

### 5. *Ajagallaka* & Phrynoderma

The edema which is associated with severe itching, which is very rough, like the shape of *Kakini* fruit, is widely spread, with mild elevation, like colour of *Neelashama* (blue stone) arising in *Karpura* (elbow joint) or *Janu Sandhi* (knee joint). [13]

**Phrynoderma** is horny follicular plugs with perifollicular plugs on the elbow, knee, anterolateral thigh, posterolateral thigh, posterolateral upper arm, posterior axillary folds, buttocks etc. The adjacent skin is generally dry, scaly and pigmented. It is a disease occurring in children and adolescents in age group 5-15 years The cause is unknown, but though to be due to vitamin A deficiency with or without additional deficiencies of essential fatty acids, vitamin B complex, vitamin E and vitamin D etc. Treatment; supplementation of these nutrients. Local application of betamethasone plus salicylic acid. [14]

Similarities between Phrynoderma and *Ajagallaka*

- a) Site of lesion in phrynoderma is elbow, knee, anterolateral thigh, posterolateral thigh, posterolateral upper arm, posterior axillary folds, buttocks etc and site of *Ajagallaka* is *Karpura* (elbow joint) or *Janu Sandhi* (knee joint).

- b) Area adjacent to Phrynoderma rash is dry, scaly, and pigmented. Shape of *Ajagallaka* rash is like *Kakini Phala* i.e. oval and it is also dry, blackish in colour and having itching also.
- c) Treatment includes anti-inflammatory steroid and keratolytic agents in modern science and *Shothahara* and *Vataghna Dravyas* in Ayurvedic science. *Shothahara* and *Vataghna Dravyas* can manage dry, scaly, and pigmented wounds of phrynoderma by pacifying vitiated *Vata dosha* which is responsible for dryness and dark pigmentation i.e. *shyava varna*.

#### 6. *Indrerna* & Dyshidrosis

Swelling seen over the foot and adjacent regions such as ankle joint, digits of foot with numerous and minute eruptions small in size, is named as *Indrerna*. [15]

**Dyshidrosis** is a type of dermatitis having itchy vesicular lesion of 1-2 mm size, on the palms of hands, sides of fingers or bottom of feet. 1 episode completes in 3-4 weeks but often reoccur. Repeated attacks result in fissures and skin thickening. Symptoms start with itchininess of palms and soles followed by sudden development of intensely itchy small vesicles on the sides of finger and palms or feet. After a few weeks the uppermost layers of skin peel off and inflammation appears around the base of the vesicle, there may be peeling, rings or scales or lichenification. The vesicles dry up and reappear after 3-4 weeks. Its triggers may include a wide range of food allergens, physical or mental stressor metals. Treatment includes avoiding triggers, steroid creams, and antihistamines. [16]

#### Similarities between *Indrerna* & Dyshidrosis

- a) In Dyshidrosis and *Indrerna* the size of lesion is small and multiple in number and the site of lesion is palms of hands, sides of fingers and bottom of feet.
- b) Treatment of Dyshidrosis includes anti-inflammatory and antihistamines and treatment of *Indrerna* is immunomodulatory (*Krishna Tulsi* and *Dhatiri*) and *Raktaprasadaka* like *Karaskaradi Tail*. Immunomodulatory and *Raktaprasadaka Dravyas* may work by removing antigen antibody complexes responsible for allergic skin conditions like dyshidrosis.

#### 7. *Idhmaka* & Sciatica

Vitiated *Rakta* coming down from the head, gets clogged excessively, will produce the stiffening of the *shira* in the hip joint to the *parshni* because of which flexion and extension of the legs is associated with severe pain and burning sensation of *parshni*. [17]

**Sciatica**: It causes movement restrictions and swelling of lower limb. Mononeuropathies are very rare in children. Sciatic neuropathy (SN) is probably the most underappreciated in children. It accounts for nearly one-fourth of the paediatric neuropathies. Direct trauma and iatrogenic mechanisms are most common causes for sciatic neuropathy followed by tumour, vascular and compression injuries. Symptoms are pain, burning sensation followed by numbness and foot drop with complete inability of dorsiflexion. Treatment includes physiotherapy. [18]

#### Similarities between *Idhmaka* & Sciatica

- a) In *Idhmaka* there is pain, restriction of movements of lower limbs and inflammation ankle joint, same is found in sciatica.
- d) Treatment of Sciatica is bed rest, NSAIDS, acupuncture, epidural spinal injection, physical therapy and behavioural treatment and Treatment of *Idhmaka* is *Vatahara* and *Shothahara*. Using *Vatashamaka* and *Shothahara*, the inflammatory changes leading to neuropathies can be effectively managed

#### 8. *Dadhmica* & Erythromelalgia

An oedematous swelling formed either in the middle of the palmar region or in the middle of the plantar region presented with reddish discoloration, fissures, severe burning sensation, fever, fatigue, and pain in joints is named as *Dadhmica*. [19]

**Erythromelalgia** is characterized by burning pain (radiating or shooting) in toes and soles and palms, accompanied by foot redness, congestion and edema, a few patients may have fever, palpitations, headache, and joint pain. The exact cause is not clear. It may be due to some autoimmune disorders. There is no cure for erythromelalgia thus, treatment is focused on relieving the patient's manifestation, which may be done with topical, oral, and behavioural therapy. [20]

#### Similarities between *Dadhmica* & Erythromelalgia

- a) Erythromelalgia is inflammatory disorder characterized by burning pain, redness, congestion and oedema in toes, soles, and palms. In some cases, patient may have fever, palpitations, headache, and joint pain. In *Dadhmica* there is also oedematous swelling of palms and soles characterized by redness, fissuring of skin with severe burning sensation, fever, fatigue and pain in joints.
- b) Treatment of Erythromelalgia is avoiding triggers, lidocaine patches, topical amitriptyline-ketamine and topical capsaicin applied three times a day, may improve pain associated with erythromelalgia. 0.2% midodrine compound may improve redness associated with Erythromelalgia. Other agent may be useful in treatment of erythromelalgia are gabapentin, pregabalin and aspirin. Treatment of *Dadhmica* includes *VataPittashamaka* and *Shothahara* (anti-inflammatory) *Dravyas* which can effectively manage inflammatory lesions by pacifying vitiated *Pitta* (responsible for erythema, burning and fever) and *Vata* (responsible for fatigue and pain) *doshas*.

**Table 1. *Shaka Roga*'s with their Symptoms and management**

<i>Shaka Roga</i>	Symptoms	Ayurvedic Treatment
1. <i>Raktolbuda</i>	Fever, restlessness, hard swelling that looks like a water bubble	<i>Pittashamaka</i> ( <i>Kushtha</i> , <i>Yashti</i> etc) <i>Dravyas</i> <i>Jalokaavcharana</i> , <i>Vranaropana</i> ( <i>Khadira</i> , <i>Yashti</i> , and <i>Triphala</i> ), and <i>krimihara</i> ( <i>Ketaki</i> , <i>Vidanga</i> , etc.) <i>Dravyas</i> .
2. <i>Asrashopha</i>	Hard rounded swelling occurring between the metacarpophalangeal joint and distal interphalangeal joint, without much elevation at the edges and deep in the center	<i>Vatashamaka</i> and <i>Shothahara</i> ( <i>Bala</i> , <i>Saireyaka</i> , <i>Kana</i> , <i>Gaja Pippali</i> , etc.) <i>Dravyas</i> .

3. <i>Gallaka</i>	Round or oval-shaped swelling with pus point, burning pain, and fever	<i>Pittashamaka</i> ( <i>Dhatri, Ushira, Madhuka, and Mustaka, etc.</i> ), and <i>Vranropaka</i> ( <i>Daruharidra and Argavdha, etc.</i> ) <i>Dravyas</i> .
4. <i>Kupaka</i>	Eedematous swelling with an elevated edge and depressed middle portion over the Prishta (gluteal region). When the swelling becomes suppurated, it exudes pus and small pits will be seen over the site of infection.	<i>Raktashodhak</i> ( <i>Sarivadi gana</i> ), <i>Vranaropaka</i> ( <i>Yashti, Triphala, etc.</i> ) <i>Dravyas</i> .
5. <i>Ajagallaka</i>	Edema with severe itching, very rough, like the shape of a <i>Kakini</i> fruit, widely spread, with mild elevation, and the colour of <i>Neelashama</i> (blue stone) arising in <i>Karpura</i> (elbow joint) or <i>Janu sandhi</i> (knee joint)	<i>Shothahara</i> and <i>Vataghna Dravyas</i>
6. <i>Indrerma</i>	Swelling seen over the foot and adjacent regions such as the ankle joint and digits of the foot, with numerous and minute eruptions.	Immunomodulatory ( <i>Krishna tulsi</i> and <i>Dhatri</i> ) and <i>Raktaprasadaka</i> ( <i>Karaskaradi tail</i> )
7. <i>Idhmaka</i>	Pain, restriction of movements of lower limbs, and inflammation of the ankle joint	<i>Vatahara</i> and <i>Shothahara Dravyas</i>
8. <i>Dadhmika</i>	Oedematous swelling formed either in the middle of the palmar region or in the middle of the plantar region, presented with reddish discoloration, fissures, severe burning sensation, fever, fatigue, and pain in joints	<i>VataPittashamaka, Shothahara</i> (anti-inflammatory) <i>Dravyas</i>

**Table 2. Comparison of Ayurvedic and Modern correlations of *Shaka Roga* and their counterparts**

<b>Shakaroga &amp; Modern correlations</b>	<b>Similarities</b>	<b>Ayurvedic Treatment</b>	<b>Modern Treatment</b>
1. <i>Raktolbuda</i> (Bullous impetigo)	Skin infection, swelling	<i>Pittashamaka</i> ( <i>Kushtha, Yashti, etc.</i> ) <i>Dravyas</i> , <i>jalokaavcharana, Vranaropaka</i> ( <i>Khadira, Yashti, and Triphala</i> ), and <i>krimihara</i> ( <i>Ketaki, Vidanga, etc.</i> )	Topical and systemic antibiotics
2. <i>Asrashopha</i> (Pachydermodactyly)	Swelling of the fingers	<i>Vatashamaka</i> and <i>Shothahara</i> ( <i>Bala, Saireyaka, Kana, Gaja Pippali, etc.</i> ) <i>Dravyas</i>	Anti-inflammatory corticosteroid injection
3. <i>Gallaka</i> (Pyogenic flexor tenosynovitis and folliculitis)	Infection of the skin or tendons	<i>Pittashamaka</i> ( <i>Dhatri, Ushira, Madhuka, and Mustaka, etc.</i> ), and <i>Vranropaka</i> ( <i>Daruharidra and Argavdha, etc.</i> ) <i>Dravyas</i>	Antimicrobial medications
4. <i>Kupaka</i> (Pyomyositis)	Infection of the muscles	<i>Raktashodhaka</i> ( <i>Sarivadi gana</i> ), <i>Vranaropaka</i> ( <i>Yashti, Triphala, etc.</i> )	Antibiotics and percutaneous aspiration
5. <i>Ajagallaka</i> (Phrynoderma)	Dry, scaly skin	<i>Shothahara</i> and <i>Vataghna Dravyas</i>	NSAIDs, steroids and keratolytic agents
6. <i>Indrerma</i> (Dyshidrosis)	Blistering of the palms and soles	Immunomodulatory ( <i>Krishna tulsi</i> and <i>Dhatri</i> ) and <i>Raktaprasadaka</i> ( <i>Karaskaradi tail</i> )	Anti-inflammatory and antihistamine medications
7. <i>Idhmaka</i> (Sciatica)	Pain in the leg	<i>Vatahara</i> and <i>Shothahara</i>	Physiotherapy, analgesics
8. <i>Dadhmika</i> (Erythromelalgia)	Burning pain in the hands and feet	<i>VataPittashamaka, Shothahar</i> (inflammatory) <i>Dravyas</i>	Lifestyle modifications, Topical & systemic analgesic, anticonvulsant, antihistaminic.

Based on the table, there are several notable patterns in the relationship between the Ayurvedic and modern medical classifications of the *Shakaroga* conditions:

- **Infectious Diseases:** Many of the Ayurvedic conditions have modern counterparts that are infectious in nature, such as *Raktolbuda* (Impetigo), *Gallaka* (Pyogenic flexor tenosynovitis and folliculitis), *Kupaka* (Pyomyositis), and potentially *Indrerma* (Dyshidrosis).
- **Skin Conditions:** Several of the conditions are primarily skin-related, including *Raktolbuda*, *Gallaka*, *Ajagallaka*, and *Indrerma*.
- **Pain and Inflammation:** Many of the conditions involve pain, inflammation, or both, such as *Asrashopha*, *Gallaka*, *Kupaka*, *Idhmaka*, and *Dadhmika*.
- **Systemic Involvement:** Some conditions, like *Kupaka* and *Dadhmika*, can have systemic effects beyond the limbs.

#### **Treatment Parallels**

- **Ayurvedic Approaches:** Ayurvedic treatments often involve balancing the *doshas* (*Vata, Pitta, Kapha*), addressing inflammation, and promoting healing.

- *Modern Approaches:* Modern treatments for these conditions often include antibiotics, anti-inflammatory medications, and physical therapy. This principle also favours to heal and to reduce inflammation.

#### **Use of Shiro lepa in Shaka Roga's**

*Shiro Lepa*, a medicated head paste, is employed in *Shaka Roga's* based on Ayurvedic principles of drug absorption and the scalp's unique characteristics. The scalp's thin skin, rich blood supply, and nerve connections facilitate the absorption and distribution of medicinal substances. While *Shaka Roga's* primarily manifests in the limbs, *Arogyakalpadrumam* believed that the root cause might originate in the head or upper body. *Shiro Lepa*, by targeting the scalp, could potentially address the underlying cause, balance doshas, and promote overall well-being, contributing to the healing of limb-related issues.

Although *Shaka Roga's* manifests in the limbs, their effects are often primarily cosmetic, leading to a negative psychological impact on the patient. This is likely why *Shiro Lepa*, a treatment traditionally used for head-related conditions, is employed for *Shaka Roga*. However, further research is necessary to fully understand the mechanisms and therapeutic benefits of this practice.

#### **Areas for Further Research :**

- *Etiology:* While the modern medical causes for many of these conditions are known, further research could explore the Ayurvedic understanding of the underlying doshic imbalances and their role in disease development.
- *Treatment Efficacy:* Comparative studies could evaluate the effectiveness of Ayurvedic and modern treatments for these conditions.
- *Ayurvedic management:* Investigating Ayurvedic treatment like *shiro lepa* for these conditions could provide valuable insights into public health strategies.

#### **Conclusion :**

The *Shakaroga Chikitsa* chapter of *Arogyakalpadrumam* offers valuable insights into the Ayurvedic approach to treating limb diseases in children. By comparing its concepts with modern medical knowledge, we can appreciate the ancient wisdom and practical applications of *Ayurveda*. Further research and exploration of this chapter can contribute to a deeper understanding of Ayurvedic treatment principles and their potential benefits for pediatric healthcare.

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#### **REFERENCES:**

1. Rammanohar, S. (2022). Bala Chikitsa on traditional Ayurvedic practice of Kerala. In *Arogya Kalpadrumam: A complete compendium on Bala Chikitsa from traditional Ayurvedic practice of Kerala* (1st ed., Ch.27/6, pp. 241-243). Chaukhambha Publications
2. Nardi, N. M., & Schaefer, T. J. (2023, July 31). Impetigo. In: StatPearls [PubMed. Treasure Island (FL): Stat Pearls Publishing.
3. Rammanohar, S. (2022). Bala Chikitsa on traditional Ayurvedic practice of Kerala. In *Arogya Kalpadrumam: A complete compendium on Bala Chikitsa from traditional Ayurvedic practice of Kerala* (1st ed., Ch. 27/19-20, pp. 241-243). Chaukhambha Publications
4. Saricam, M. H., Salman, A., & Yucelten, A. D. (2015). Symmetrical fusiform swellings around the proximal interphalangeal joints. *Dermatology practical & conceptual*, 5(3), 53–54.
5. Dallos, T., Oppl, B., Kovács, L., & Zwerina, J. (2014). Pachydermodactyly: a review. *Current rheumatology reports*, 16(9), 442.
6. Rammanohar, S. (2022). Bala Chikitsa on traditional Ayurvedic practice of Kerala. In *Arogya Kalpadrumam: A complete compendium on Bala Chikitsa from traditional Ayurvedic practice of Kerala* (1st ed., Ch. 27/31-32, pp. 241-243). Chaukhambha Publications.
7. Chapman, T., & Ilyas, A. M. (2019). Pyogenic Flexor Tenosynovitis: Evaluation and Treatment Strategies. *Journal of hand and microsurgery*, 11(3), 121–126.
8. Hermena, S., & Tiwari, V. (2024, January 8). Pyogenic flexor tenosynovitis. In StatPearls [PubMed].
9. Chapman, T., & Ilyas, A. M. (2019). Pyogenic Flexor Tenosynovitis: Evaluation and Treatment Strategies. *Journal of hand and microsurgery*, 11(3), 121–126.
10. Winters, R. D., & Mitchell, M. (2023). Folliculitis. In Stat Pearls. Stat Pearls Publishing.
11. Rammanohar, S. (2022). Bala Chikitsa on traditional Ayurvedic practice of Kerala. In *Arogya Kalpadrumam: A complete compendium on Bala Chikitsa from traditional Ayurvedic practice of Kerala* (1st ed., Ch. 27/46-47, pp. 243-245). Chaukhambha Publications
12. Mitsionis, G. I., & et al. (2009). Pyomyositis in children: Early diagnosis and treatment. *Journal of Pediatric Surgery*, 44(11), 2173-2178.
13. Rammanohar, S. (2022). Bala Chikitsa on traditional Ayurvedic practice of Kerala. In *Arogya Kalpadrumam: A complete compendium on Bala Chikitsa from traditional Ayurvedic practice of Kerala* (1st ed., Ch. 27/56-57, pp. 241-243). Chaukhambha Publications.
14. Kumar, S. (2014). *Manual of pediatric practice* (4th ed.). Paras Medical Publishers. ISBN: 9788181914231
15. Rammanohar, S. (2022). Bala Chikitsa on traditional Ayurvedic practice of Kerala. In *Arogya Kalpadrumam: A complete compendium on Bala Chikitsa from traditional Ayurvedic practice of Kerala* (1st ed., Ch. 27/64 pp. 247). Chaukhambha Publications.
16. Calle Sarmiento, P. M., & Chango Azanza, J. J. (2020). Dyshidrotic Eczema: A Common Cause of Palmar Dermatitis. *Cureus*, 12(10), e10839.

17. Rammanohar, S. (2022). Bala Chikitsa on traditional Ayurvedic practice of Kerala. In *Arogya Kalpadrumam: A complete compendium on Bala Chikitsa from traditional Ayurvedic practice of Kerala* (1st ed., Ch. 27/70, pp. 247). Chaukhambha Publications.
18. Prasad, M., Babiker, M., Rao, G., & Rittey, C. (2013). Pediatric sciatic neuropathy presenting as painful leg: A case report and review of literature. *Journal of pediatric neurosciences*, 8(2), 161–164.
19. Rammanohar, S. (2022). Bala Chikitsa on traditional Ayurvedic practice of Kerala. In *Arogya Kalpadrumam: A complete compendium on Bala Chikitsa from traditional Ayurvedic practice of Kerala* (1st ed., Ch. 27/82-83, pp. 241-243). Chaukhambha Publications.
20. Jha, S. K., Karna, B., & Goodman, M. B. (2023, May 1). Erythromelalgia. In: *StatPearls* [Pubmed]. Treasure Island (FL): StatPearls Publishing.