



Pyoderma in Children and its Homoeopathic management

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Abstract: Pyoderma is one of the most common childhood skin diseases. It is a group of conditions caused by infection of skin by pus forming organisms. The main causative micro-organisms are Staphylococcus aureus and Streptococcus pyogens. Pyoderma is cutaneous bacterial infection, commonly found in India and it makes a large portion of patients attending the clinics. It has been seen to be associated with the economically weaker section and more prevalent in paediatric group. Homeopathy is better and safer for pyoderma than topical medications and antibiotics.

Key words: Pyoderma, homoeopathy, cutaneous, bacterial infections, topical medications.

Introduction: A group of conditions caused by infection of skin by pus forming organisms. The most common organisms are ^[1]:

- Staphylococcus aureus
- Streptococcus pyogens

The Primary Pyoderma is most commonly seen in children less than 10 years of age and prevalence rate is more in male patients. The clinical presentation depends on the area of involvement. The commonly seen pyodermas in children are: Impetigo, Ecthyma, Cellulitis, Boils and Furuncles, Erysipelas ^[2].

1. **Impetigo:** Impetigo is the infection of the upper layer (upper epidermis) of the skin. Causative organism is streptococcus pyogens (upper epidermis) of the skin. Clinically it is seen in 2 forms:

A. **Impetigo contagiosa:** It may occur as primary infection of the epidermis or may occur secondary to other skin conditions such as scabies, pediculosis, insect bites, herpes, eczemas etc.

➤ **Commonest site:** face

➤ **Clinical features:** The lesions begin with a single 2-4 mm erythematous macule that rapidly evolves into a thin walled vesicle with clear fluid. This vesicle is very fragile and ruptures early, leaving a honey or yellow color over the superficial erosion (superficial ulcer). Removal of the crust exposes underlying eroded surface and little oozing. This vesicular fluid is contagious to the surrounding areas.

➤ **Spread:** The infection spreads to contiguous and distal areas from scratching.

➤ **Severe cases:** Rare severe cases may show regional lymph node involvement with or without fever.

➤ **Course:** The lesions gradually extend irregularly to the periphery without central healing. At the end crusts dry and separate without scarring.

B. Bullous Impetigo: Bullous impetigo is toxin-mediated due to exotoxin produced by *Staphylococcus aur*, in which the epidermis layer sloughs resulting in large areas of skin loss.

➤ **Age group:** Seen in new born and young children.

➤ **Commonest site:** Trunk and extremities.

➤ **Clinical Features:** It presents as diffusely scattered, tense bullae (blisters) 1-2 cm in size. The blisters are filled with clear fluid. When blisters are rupture thin, flat, brownish crusts are formed. Lymphadenopathy and constitutional symptoms are usually absent.

2. Ecthyma: Infection of deeper layers of the skin i.e. lower epidermis and upper dermis results in Ecthyma.

➤ **Age Group:** Older Children

➤ **Predisposing Conditions:**

- Poor Hygiene
- Malnutrition
- Tropical Climate
- Crowded living conditions
- Underlying skin conditions

➤ **Common sites:** Legs and Feet

➤ **Clinical Features:** The lesions start with vesicles, which dry up to form dark brown or black, hard crust, adherent to the skin. The crust if removed leaves a shallow, purulent, irregular ulcer. The pus is usually blood stained. Ulcers heal with scarring.

➤ **Laboratory diagnosis for Impetigo and Ecthyma:** Diagnosis is based primarily on the appearance of the skin. However, cultures of the fluid would reveal *Staphylococcus*, most commonly in combination with *streptococcus pyogens* or other Group A Haemolytic *Streptococci*, but either may occur alone ^[3].

➤ **General management for Impetigo and Ecthyma:**

- Few simple preventive measures prevent the infection from spreading.
- Do not touch or scratch the affected parts.
- Use soap and water to bathe the child.
- Avoid sharing of clothes, towels, etc. with the infected child.

➤ **Prevention of Impetigo and Ecthyma:**

- Use soap and water to bathe the child.
- Give attention to cuts, rashes, insect bites, and allergic reactions. Avoid scratching over affected sites.
- Keep finger nails of the child clipped short.

3. Cellulitis: Cellulitis is the infection of deep dermis of the skin and the subcutaneous tissue ^[4]. It commonly occurs in the area of skin trauma or skin barrier breakdown.

➤ **Predisposing conditions:** Underlying skin conditions such as surgical wounds, injuries, cutaneous ulcers etc.

➤ **Clinical Features:** Spreading redness with indistinct borders, warmth and edematous appearance of the skin. Palm and constitutional symptoms (malaise, chilly sensation, and fever) are usually present. Sometimes the central portion becomes nodular and surmounted by a vesicle that ruptures and discharges pus and necrotic material, gangrene, metastatic abscesses, and grave sepsis may follow with needs referral for specialized treatment.

4. Erysipelas: Infection of upper layer of dermis usually by *Streptococci*.

➤ **Age Group:** Infants, Young children.

➤ **Clinical Features:** Infection generally occurs by abrasion, scratching and other breaks. It presents as sharply defined, slightly elevated tender erythematous area. Fever, chills, malaise, regional lymphadenopathy are commonly associated.

➤ **Management:** Prompt treatment is indicated in case of erysipelas.

➤ **Complications:** Some strains of streptococci may predispose towards post streptococcal glomerulonephritis.

5. Boils or Furuncles: Infections confined to hair follicles and perifollicular structures. Most common organism is Staph aureus: The infection process may be superficial or deep.

➤ **Predisposing conditions:**

- Poor hygiene
- Tropical climate.
- Crowded living conditions.
- Multiple recurrent furuncles in children may be associated with malnutrition or with immuno-compromised state.

➤ **Clinical Features:** Clinical lesion begins as a small pustule around follicular orifice^[5]. Hair may or may not be seen piercing the pustule. Usually perifollicular erythema may be present. Pustule may rupture followed by crust formation. Pruritis is common.

➤ **Prognosis:** Deep form of folliculitis can result in scarring and alopecia.

➤ **General management:**

- Finger nails of child should be cut short.
- Avoid scratching of lesions.

Related rubrics:

1. Cellulites: Boericke → Generalities → Cellulites^[6]
2. Erysipelas: Kent → Skin → Erysipelas [also in parts]^[7]
3. Furuncle: Boericke → Skin → Furuncle (Boil)
4. Carbuncle: Kent → Skin → Eruptions carbuncle [Refer parts]
5. Impetigo: Boericke → Skin → Impetigo [Refer parts]
6. Bullous Impetigo: Kent → Eruptions → Blisters
7. Ecthyma: Kent → Skin → Eruptions → Ecthyma
8. Intertrigo: Robin Murphy → Skin → Intertrigo^[8]
9. Pyoderma: Robin Murphy → Skin → Eruptions → Suppurating
10. Pyoderma Gangrenosum: Robin Murphy → Skin → Eruptions → Phagedenic
11. Erysipelas: Synthesis Skin → Erysipelas^[9]

Homoeopathic Management: Frequent homoeopathic medicines used and their characteristic indications are as follows^[10, 11]:

1. **Arnica Montana**-Chilly patient, putrid phenomenon, septic conditions, prophylactic for purulent conditions, offensiveness, bruised, soreness all over body as if broken, desire for sour, food aversion to meat and milk, nervous, fears being touched or being approached, aversion company, fear of space. Itching burning, eruptions of small pimples. Crops of small boils.

2. **Hepar Sulphuris**- Extremely chilly patient, hypersensitive (to cold, pain), scrawny, glandular constitution, sweat easily, quick, hasty speech and drinking, irritable, difficult to please. Skin lesions are extremely sensitive to

touch, pain and often causes fainting. Discharges from all parts of the body smell like old cheese. Inflamed spots, eruptions, boils or suppurations have splinter like pains, worse by least touch. Slightest injury suppurates. Herpetic eruptions and ulcers are surrounded by little pimples or pustules and spread by coalescing. Worse cold air, uncovering, eating or drinking cold things, better warmth in general.

3. **Echinacea**- Chilly patient, septic conditions with foul discharges with emaciation and great debility, insect bites, tiredness. Recurring boils. Irritation from insect bite, poisonous plants and lymphangitis. Delayed or non-healing of ulcers.

4. **Mercurius solubilis**- sensitive to extremes of temperature, lax musculature, profuse offensive perspiration, tongue flabby with imprint of teeth, before thirst increased salivation, worse at night wet damp weather, fearful, shy, impulsive, weak memory. Vesicular and pustular eruptions. Ulcers irregular in shape with undefined edges. Skin inflamed, hard with burning and stinging pain. Inflamed parts tend to indurate. Constantly moist skin abscesses, slow to suppurate. Every little injury suppurates.

5. **Rhus Toxicodendron**- chilly patient worse in damp cold weather, marked thirst drowsy after eating, red triangular tip of tongue, restless cannot remain in one position, great apprehension at night. Cellulitis and infections. Carbuncles in early stages. Eruptions vesicular, yellow with much swelling, inflammation, burning, itching and stinging. Red swollen with intense itching. Great sensitiveness to open air. Worse in cold wet rainy weather and after rain, cold applications better.

6. **Silicea**- extremely chilly patient, light complexion, profuse offensive discharges, easy suppuration with glandular affinity, large head and distended abdomen, weak ankles, slow in learning to walk, constipation, stool when partly expelled recedes back again, all symptoms worse by cold except stomach complaints, which are ameliorated, children are obstinate, head strong, cry when spoken kindly to, nervous apprehension, oversensitive, irritable and fearful. Unhealthy skin, every little injury suppurates. Pus offensive. Promotes expulsion of foreign bodies from tissues. On skin moist eruptions, pimples, pustules, abscesses, felon.

7. **Anthracinum**- Septicemia, haemorrhages, black, thick, tar like, rapidly decomposing blood. Felons with rapid tendency to sepsis causing septic fever. Rapid loss of strength, sinking pulse and fainting. Insect stings; red streaks from the wound map out the course of lymphatics. Terrible burning pain, when Ars. Alb indicated but fails. Succession of boils.

Conclusion: Pyoderma is a common and preventable condition. Primary Pyoderma is common in children with the most commonly presenting clinical type is folliculitis followed by Impetigo. Secondary pyoderma cases noted only few among which infective Scabies is the commonest type. Pyoderma is most commonly seen in lower limbs. Emphasis on hygiene as well cleaning may decrease the risk. Early identification of secondary pyoderma infections should be treated. Decrease in the prevalence rate of Pyoderma improves the quality of life of children. Homoeopathic medicines are act best when given on the basis of totality ^[11] & Homoeopathic medicines are very effective for Pyoderma in children.

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