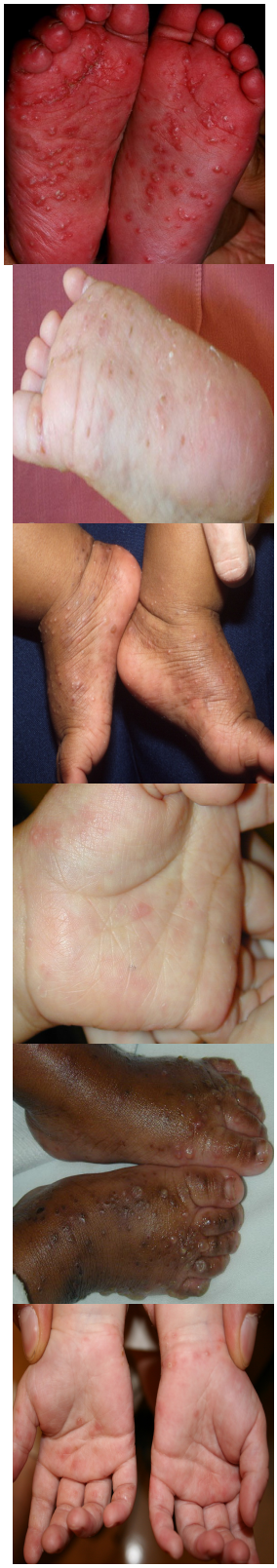

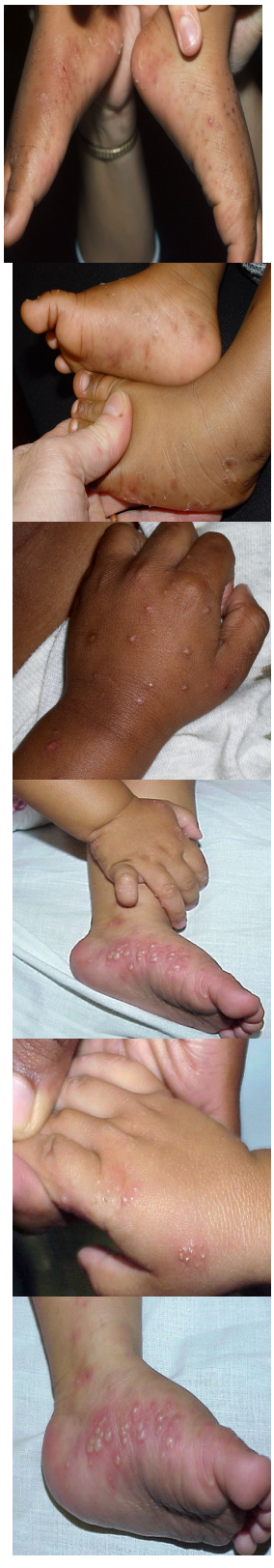

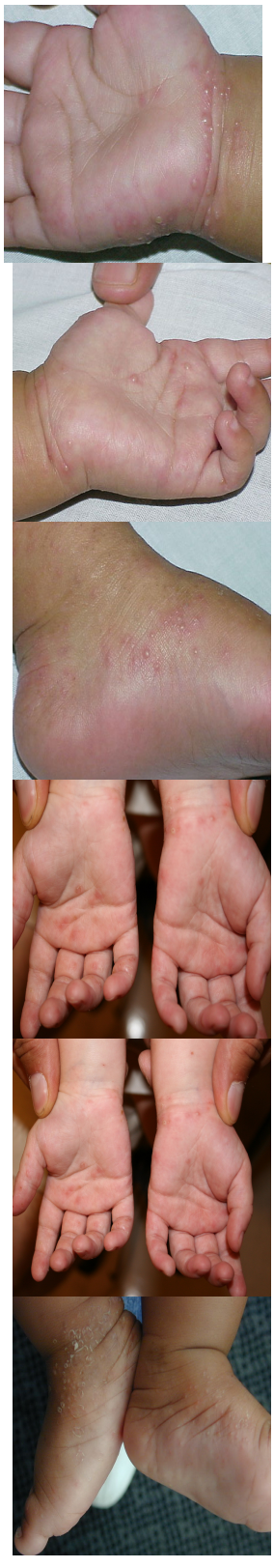

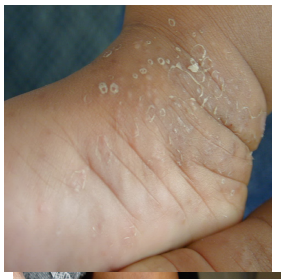

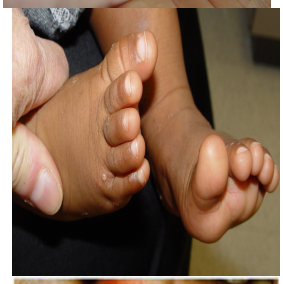

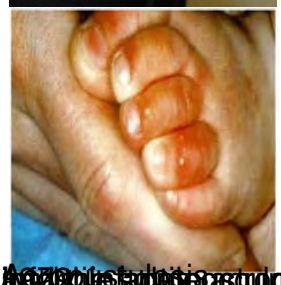

Pathophysiology

The pathophysiology of infantile acropustulosis is unknown. Many cases of infantile acropustulosis are preceded by well-documented or suspected scabies infestation, and a scabies id reaction has been suggested.[2,3,4] More often, cases of infantile acropustulosis occur despite scabies having been thoroughly ruled out. Bacterial and viral culture results are consistently negative, and negative immunofluorescence results suggest that infantile acropustulosis is not an antibody-mediated autoimmune process

History

The classic history of infantile acropustulosis is an infant aged 2-12 months developing pruritic erythematous macules or papules that progress into vesicles and then pustules. Children are fretful, irritable, and obviously uncomfortable, but otherwise healthy. Individual bouts of infantile acropustulosis last 7-15 days and recur in 2- to 4-week intervals.

Often, children have been empirically treated with antiscabies medicines prior to presentation[4] .

The intensity and the duration of infantile acropustulosis attacks diminish with each recurrence.

Physical

The hands and the feet are always involved in infantile acropustulosis, usually on the palms, the soles, and the lateral surfaces. Lesions may occur on the dorsal aspects of the hands and the feet as well as the trunk, the scalp, and the face.

Infantile acropustulosis lesions begin as small macules or papules that then form distinct, noncoalescing vesicles and pustules (see the image below). They heal with macular hyperpigmentation. No other organ systems are involved in infantile acropustulosis,

Causes

The cause of infantile acropustulosis is unknown. Scabies as a preceding or concomitant infestation is well documented in some cases. Many children are undoubtedly misdiagnosed as having scabies and treated with lindane or permethrin without any confirmatory scrapings. No other infectious agent has been documented.

Laboratory Studies

No laboratory studies are needed to make the diagnosis of infantile acropustulosis. A complete blood cell count often shows eosinophilia. Cultures and smears help to rule out an infectious etiology.

Histologic Findings

A unilocular, subcorneal, or intraepidermal pustule containing polymorphonuclear neutrophils or eosinophils is characteristic in infantile acropustulosis. Papillary dermal edema and a mild perivascular, mostly lymphocytic, infiltrate in the dermis may be present.[5] Direct immunofluorescence results are negative.

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Medical Care

Treatment is often unnecessary because of the self-limited nature of infantile acropustulosis. Topical steroids[4] and oral dapsone[7] have been used successfully, if justified in more difficult cases. Topical pramoxine preparations are available without prescription for the treatment of pruritus. Oral antihistamines may be useful in infantile acropustulosis.

Consultations

In infantile acropustulosis, consult a dermatologist or a pediatric dermatologist.

Activity

Isolation is not warranted.

Medication

High-potency topical steroids (classes 1 and 2) have been used successfully for control of pruritus. Children who are extremely symptomatic may be treated with dapsone.

Topical steroids

These agents provide symptomatic relief of pruritus.

Betamethasone (Diprolene, Betatrex)

For inflammatory dermatoses responsive to steroids. Decreases inflammation by suppressing migration of polymorphonuclear leukocytes and reversing capillary permeability. Use fluorinated topical steroids with caution in children.

- Dosing
- Interactions
- Contraindications
- Precautions

Adult

Pediatric

Apply thin film to affected areas bid; occlusion increases effectiveness; avoid wraps that may present choking hazard

- Dosing
- Interactions
- Contraindications
- Precautions

None reported

- Dosing
- Interactions
- Contraindications
- Precautions

Documented hypersensitivity; paronychia; cellulitis; impetigo; angular cheilitis; erythrasma; erysipelas; rosacea; perioral dermatitis; acne

- Dosing
- Interactions
- Contraindications
- Precautions

Pregnancy

C - Fetal risk revealed in studies in animals but not established or not studied in humans; may use if benefits outweigh risk to fetus

Precautions

Application over large surface areas may cause systemic absorption and adrenal suppression; do not use on skin with decreased circulation; can cause atrophy of groin, face, and axillae; if infection develops and is not responsive to antibiotic treatment, discontinue until infection is under control

Antibiotics

Diaminodiphenylsulfone antibiotics have been used as anti-inflammatory agents.

Dapsone (Avlosulfon)

Bactericidal and bacteriostatic against mycobacteria; mechanism of action is similar to that of sulfonamides where competitive antagonists of PABA prevent formation of folic acid, inhibiting bacterial growth. Used mainly to treat leprosy and dermatitis herpetiformis. Has antineutrophil and anti-inflammatory properties.

- Dosing
- Interactions
- Contraindications
- Precautions

Adult

Pediatric

1-2 mg/kg/d PO; not to exceed 100 mg

- Dosing
- Interactions
- Contraindications
- Precautions

May inhibit anti-inflammatory effects of clofazimine; hematologic reactions may increase with folic acid antagonists, eg, pyrimethamine (monitor for agranulocytosis during second and third months of therapy); probenecid increases toxicity; trimethoprim with dapsone may increase toxicity of both drugs; because of increased renal clearance, levels may significantly decrease when administered concurrently with rifampin
Concomitant administration of zidovudine may increase risk of hematologic toxicity; amprenavir and saquinavir may inhibit cytochrome P4503A (CYP3A), the hepatic isoenzyme group with major activity related to dapsone metabolism, thereby leading to increased dapsone serum concentrations and potential toxicity

- Dosing
- Interactions
- Contraindications
- Precautions

Documented hypersensitivity; known G-6-PD deficiency (assay for G-6-PD activity prior to initiation of therapy)

- Dosing
- Interactions
- Contraindications
- Precautions

Pregnancy

C - Fetal risk revealed in studies in animals but not established or not studied in humans; may use if benefits outweigh risk to fetus

Precautions

Associated with a variety of systemic toxicities, including agranulocytosis, anemia, methemoglobinemia, hepatitis, and neuropathy; patients may experience headache and/or GI distress on initiation of therapy; perform weekly blood counts (first mo), then monthly WBC counts (6 mo), then semiannual WBC counts; discontinue if a significant reduction in platelets, leukocytes, or hematopoiesis occurs; caution in methemoglobin reductase deficiency, G-6-PD deficiency, or hemoglobin M because of high risk for hemolysis and Heinz body formation; caution in patients exposed to other agents or conditions (eg, infection, diabetic ketosis) capable of producing hemolysis; peripheral neuropathy can occur (rare); phototoxicity may

occur when exposed to UV light; pancreatitis may occur; various forms of renal complications including acute renal failure, acute tubular necrosis, and oliguria have occurred with dapsone use

Antipruritics

These agents may relieve associated itching.

Pramoxine (Tronothane, Prax)

Blocks nerve conduction and impulses by inhibiting depolarization of neurons. Use 1% lotion or cream.

- Dosing
- Interactions
- Contraindications
- Precautions

Adult

Pediatric

Apply to affected area prn; not to exceed 200 mg