

Cold Panniculitis Neonatorum

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Localised areas of erythema and induration developed on the feet of 2 term neonates (male and a female) on the 7th and 10th day of life respectively, at the peak of winters in the plains of North India. There were no preceding perinatal risk factors or complications. The babies had no direct exposure to any cold object or ice. Woody erythema was noted first, followed by (24 to 48 hrs) formation of red-purple nodules. Gradual rewarming was done over a period of days, and both babies had complete recovery.

Cold panniculitis neonatorum, also called adiponecrosis subcutanea is an acute, nodular, erythematous eruption usually limited to areas exposed to the cold in the full-term newborn. Cold panniculitis results from a cold injury to subcutaneous adipose tissue, which leads to inflammation of the adipose tissue. Anoxia, cold, and humidity

play a role in its causation. The eruptive phase usually begins 48 (6-72) hours after a cold injury to exposed or poorly protected areas. Lesions present as localized indurated nodules with ill-defined margins.



FIG. 1 Newborn with cold panniculitis involving left foot.

Nodules are firm or hard and cold and painful. Cutaneous distribution in children characteristically is on the face (cheeks and forehead) and extremities (feet and hand). Cold panniculitis neonatorum should be differentiated from sclerema neonatorum, poststeroid panniculitis and chill blains. Biopsy is reserved for diagnostic problem cases. The classic features of cold panniculitis on histopathology predominantly are a lobular panniculitis with scattered lymphohistiocytic and eosinophilic infiltrates. Cold Panniculitis neonatorum is a self-limiting disorder (resolves within few weeks) and requires only symptomatic relief and slow rewarming.