

Neonatal Fat Necrosis

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History

Newborn with indurated and erythematous skin over the back 1 week after therapeutic cooling for perinatal asphyxia.

Diagnosis

Fat Necrosis

Discussion

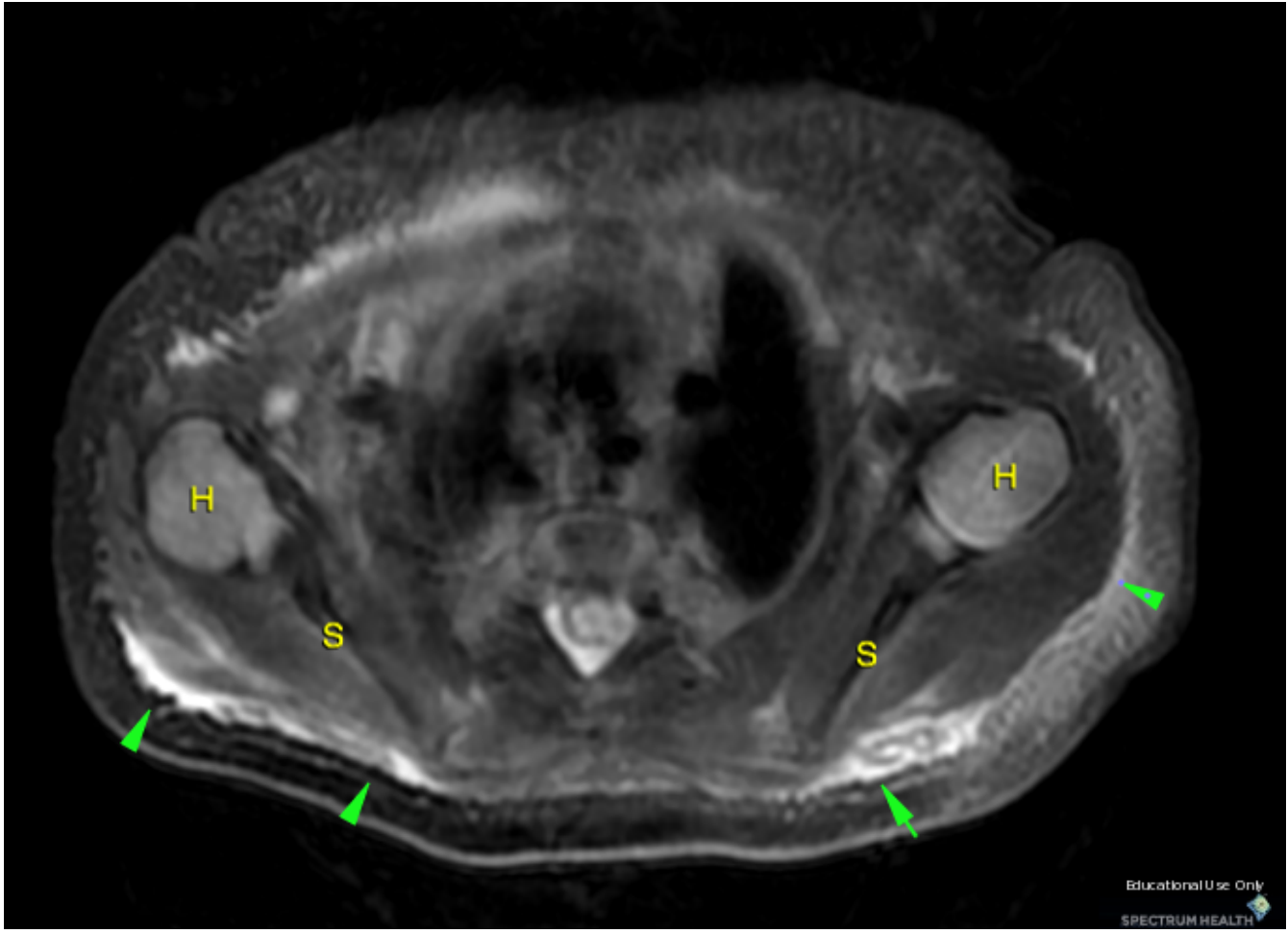
Erythematous or violaceous non-suppurative subcutaneous nodules with induration of the skin one-two weeks after a complicated perinatal period (usually asphyxia, meconium aspiration, or eclampsia) are characteristic of fat necrosis. Brown fat is more prevalent in the newborn and more prone to fat necrosis from therapeutic hypothermia because of higher concentrations of palmitic and stearic acids compared to yellow fat. Mechanical pressure associated with therapeutic cooling impairs reperfusion after tissue hypoxia. Edema and dystrophic calcifications may be seen on imaging. Both clinical and imaging findings usually resolve over several months.

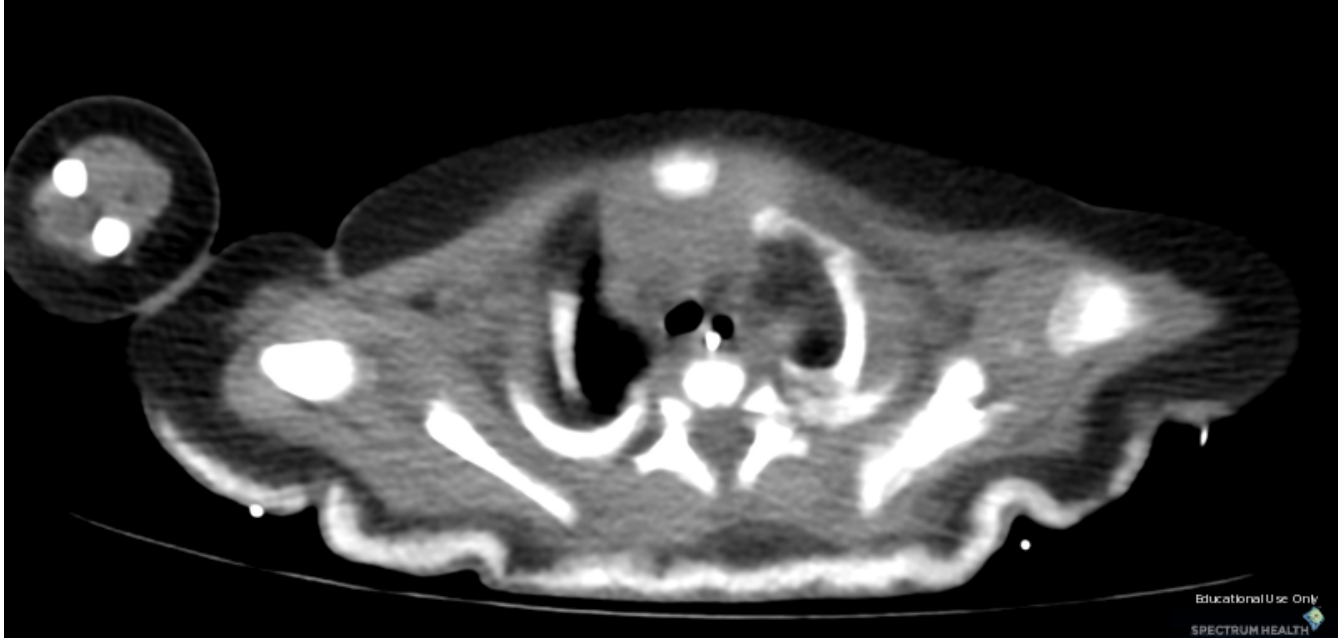
Findings

MR-Axial T2 image shows edema (arrowheads) at subcutaneous fat and muscular fascia interface.
CT-Axial noncontrast image shows extensive calcification of the subcutaneous soft tissues.

Reference

Srinath G, Cohen M. Imaging findings in fat necrosis in a newborn. *Pediatr Radiol* (2006); 36:361-363.





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