Subcutaneous Fat Necrosis of the Newborn: A Case Report and Literature Review

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Introduction
Subcutaneous fat necrosis of the newborn (SFNN) is an uncommon but important complication of perinatal care. While most cases resolve spontaneously, complications can include hypercalcaemia (up to 70%), thrombocytopenia and hypertriglyceridaemia.

We report a case of SFNN and a literature review of published cases.

Case A term infant was treated with therapeutic hypothermia. Median onset of skin lesions was day of life 6 (range: 1–70). Median duration of skin lesions was 62 days (range: 14–390).

Hypercalcaemia developed in 53% (60/113). Median day of onset of hypercalcaemia was day 28 (range: 1–210). Median duration of hypercalcaemia was 26 days (range: 4–240). 52% (31/60) of hypercalcaemia was asymptomatic. Of those with hypercalcaemia, nephrocalcinosis was reported in 27% (16/60), subcutaneous calcification in 7% (4/60), and visceral calcinosis in 5% (3/60). Hypertriglyceridaemia was reported in 7% (8/119). Thrombocytopenia was reported in 18% (21/119).

Information regarding treatment was provided in 109/119 cases. 47% (51/109) were managed conservatively. Hyperhydration was required in 30% (33/109), dietary restriction of
vitamin D/calcium in 27% (29/109), furosemide in 26% (28/109), glucocorticoids in 22% (24/109), bisphosphonates in 7.6% (9/119), and calcitonin in 3.7% (4/109).

Outcome information was provided in 106/119 cases. 87% (92/106) reported a full resolution. Persistent calcinosis was present in 5.7% (6/106).

Conclusion Babies treated with therapeutic hypothermia should be closely monitored for SFNN, and development of hypercalcaemia.

**GP263 OCCURRENCE OF CLINICAL FEATURES AND RISK FACTORS IN CULTURE POSITIVE EARLY ONSET SEPSIS COMPARED TO NO SEPSIS IN NEONATES ≥35 WEEKS GESTATION**

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Background Despite advances in prevention strategies the diagnosis of neonatal sepsis and clinical decision making remains challenging. Empirical antibiotic treatment is given to neonates when sepsis is suspected. However, clinical and laboratory signs are generally unspecific and most neonates who receive antibiotics are not ultimately diagnosed with sepsis. Many physicians view empirical antibiotics as the safest course of action in cases of equivocal clinical presentation. The long term effects of early gut flora modification are poorly understood but some scientists suggested this may alter activation of genes involved in modulating immune responses. This study aims to provide some insight into the level of risk associated with typical indications for neonatal septic workup at our institution.

Methods We conducted a retrospective case-control study. Infants born at ≥35 weeks gestation who received empirical antibiotics over a three months period were included along with all infants who were recorded to have culture positive sepsis in a ten year period. Three outcome groups were defined: (1) Culture positive sepsis (N=43) (2) Suspected culture negative sepsis (N=5) and (3) No sepsis (N=97). Rates of clinical symptoms and exposure to maternal and neonatal risk factors were compared. P-values were calculated using a test for equality of proportions implemented in the R programming language.

Results There was a statistically significant increase in red flag clinical features (mechanical ventilation, seizures, respiratory distress starting more than 4 hours after delivery and signs of shock) in the culture positive sepsis group compared to the no sepsis group (p < 0.01). There was no statistically significant difference in the occurrence of exposure to suspected chorioamnionitis, PROM or late prematurity.

Conclusion Respiratory distress and suspected chorioamnionitis were the most common indications for a sepsis workup but neither was significantly more common in the culture positive sepsis group. Observation and repeated evaluation may be suitable for infants with equivocal presentation. Critically ill infants with red flag clinical features and infants with a greater number of clinical symptoms should have a blood culture taken and IV antibiotics commenced without delay.