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## Petroleum Ointment and Risk of Candidiasis in Low-Birth-Weight Infants

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Researchers at Baylor College of Medicine, Houston, Texas, investigated an increase in the incidence of systemic candidiasis following a change in skin care for extremely-low-birth-weight infants in a 48-bed neonatal ICU (NICU). The skin-care change included the use of topical petrolatum ointment (TPO).

In a case-control study, 10 extremely-low-birth-weight infants with and 30 without systemic candidiasis admitted to the NICU from December 1, 1997, through July 31, 1998, were studied. A case was defined as an infant weighing  $\leq 1,000$  g at

birth, with *Candida* species isolated from a normally sterile body site. Molecular analysis of *Candida* isolates was performed by karyotyping and restriction fragment-length polymorphism using pulsed-field gel electrophoresis.

The investigators found that case infants had a mean ( $\pm$  standard deviation) age at onset of 21.5 $\pm$ 24 days. Infants with systemic candidiasis and controls did not differ in birth weight, gestational age, or duration of therapy with steroids, antibiotics, insulin, or total parenteral nutrition. Although cases were more likely to be born vaginally and had a longer duration of endotracheal intubation than controls, these differences were not significant. The odds ratio for skin care with TPO in case

infants versus control infants was 11 (95% confidence interval, 1.9-63). Skin care with TPO was discontinued, and the incidence of SC decreased to baseline.

The authors note that several *Candida* species and genetic profiles were identified, suggesting that there was not a common source outbreak but rather the use of TPO increased the risk of systemic candidiasis in extremely-low-birth-weight infants.

FROM: Campbell JR, Zaccaria E, Baker CJ. Systemic candidiasis in extremely low birth weight infants receiving topical petrolatum ointment for skin care: a case-control study. *Pediatrics* 2000;105:1041-1045.