Neonatal Dermatoses

Israel D. Andrews, MD, and John A. Mouzakis, MD

Disease	Timing of Onset	Morphology/Location	Work-Up	Hints
Erythema Toxicum Neonatorum	Birth - 2 weeks, average 24 - 48 Hours	Macules, papules, or pustules on a "splotchy" erythematous base, can present anywhere, but spares palms and soles	Sterile smear w/ Wright Stain will show EOSINOPHILS, No treatment necessary	Full Term Infants
Transient Neonatal Pustular Melanosis	Birth	Fragile vesicles and pustules, rupture leads to hyperpigmented macules with collarettes of scale with progression to hyperpigmented macules, rarely involves scalp, palms, and soles	Sterile smear w/ Wright Stain will show NEUTROPHILS, No treatment necessary	More common in dark skin
Milia	Birth	1-2mm pearly white papules, few to numerous but can be grouped.	Disappear spontaneously in 1st month, no treatment necessary	Persistence or widespread distribution may be associated with Dystrophic Epidermolysis Bullosa, Bazex, Rombo, or hereditary trichodysplasia (Marie-Unna Hypotrichosis)
Miliaria	Crystallina Birth - first week Rubra - After first week	Crystallina - "dew drop" vesicles w/o erythema, can present anywhere Rubra - erythematous papules, sometimes pustules, favoring intertriginous areas	Often caused by excessive warming/ swaddling leading to the blockage of eccrine ducts. Resolves with cooling and removal of occlusion	Findings are due to a relative immaturity of eccrine ducts, patients may have a recent history of fever
Acne Neonatorum	Within first 30 days	Eruption and distribution similar to adolescent acne, erythematous papules, pustules on the face, NO COMEDONES typically	Giemsa Stain reveals neutrophils and yeast. Usually no treatment necessary, soap and water, mild keratolytics and topical antibiotics for persistent lesions	Neonatal Cephalic Pustulosis = Acne Neonatorum, associated with *Malassezia species,* treat w/ topical antifungals if desired. In recalcitrant cases of Acne neonatorum, consider a work-up for Androgen Excess
Seborrheic Dermatitis	1 week after birth, average 3rd-4th week of life	Greasy, scaly, erythematous, patches and plaques +/- occasional weeping, primarily on scalp (Cradle Cap), groin, face, ears and trunk, "Seborrheic distribution"	Scalp: Mild "No Tears" Shampoo/Selenium Sulfide, for thick scale mineral/baby oil Body: Topical Ketoconazole 2%, or Class VI/VII Steroid cream/ointment	Severe and recalcitrant Seb Derm should prompt search for alternative diagnoses. Seb Derm + exfoliation + failure to thrive and diarrhea = Leiner Disease, a phenoytpe associated with complement deficiency, SCID, Bruton's Hypogammaglobulinemia and Job Syndrome
Eosinophillic Pustular Folliculitis	Birth - first few weeks	Follicular pustules most commonly on scalp and extremities	Bx: eosinophillic follicular inflammatory infiltrate Tx: Topical Steroids and antihistamines, resolution is typically by 3 years of age	Lesions resemble the adult variant but do not occur in annular crops, may occasionally be the presenting sign of Hyper IgE syndrome

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Neonatal Dermatoses (continued)

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Disease	Timing of Onset	Morphology/Location	Work-Up	Hints
Langerhans Cell Histiocytosis	Birth	Yellowish to red-brown papules, +/- erosive or purpuric features, involving "Seborrheic Areas" - groin, axillae, and retroauricular scalp, palms and soles may be involved	Skin biopsy with stains for Langerhans cells is diagnostic (CD1a, S100, Langerin), Lymphadenopathy is common, and multi-organ system must be ruled out	Consider in infants with recalcitrant seborrhea OR diaper dermatitis. A self-healing variant with involvement limited to the skin is called Hashimoto-Pritzker Disease
Impetigo Neonatorum	2nd day - 2nd week	Vesicular, pustular or bullous lesions on an erythematous base, denudation leaves a red moist base w/o crust, usually found in moist folds of the body (groin, axillae, neck)	Topical Antibiotics	Neonatal pustulosis due to *Staph aureus* leads to the development of fragile pustules on an erythematous base, neonates do not usually develop systemic symptoms
Scabies	Birth - all ages	Erythematous papules, nodules, burrows and vesiculopustules +/- crust distributed in the diaper area, palms, soles, axillae head or scalp	Mineral Oil Exam identifying mites, eggs, or scybala is diagnostic Tx – 6% Sulfur compounded with petrolatum for infants < 2 months for 3 nights, wash off every 24 hours	Like adults, infection is intensely pruritic. Signs include irritability, poor sleep and eating habits. Crusted scabies maybe a sign of immunodeficiency
Neonatal Varicella	Birth – 2 weeks	Vesicles on erythematous base, generalized, lesions may be in different stages – papules, vesicles, crusts	Tzanck preparation, DFA, viral culture, serology Tx: IV acyclovir +/- VZV IVIG	Primary maternal infection: 1 week before to 2 days after birth Congenital: erosions + scarring, maternal acquisition 1st- 2nd trimester, low birth weight, ocular abnormalities, limb anomalies, cortical atrophy
Neontal Herpes Simplex Virus	Birth - 2 weeks of age, often >5 days	Vesicles, bullae, erosions can favor scalp/trunk or be disseminated	Tzanck preparation, DFA, PCR, viral culture, serology Tx: IV acyclovir	Higher risk if mother acquires genital HSV near delivery, mother may be asymptomatic, low risk for recurrent infection, can involve CNS, eye, and internal organs Congenital: vesicles, extensive erosions, scars, areas devoid of skin, low birth weight, microcephaly, chorioretinitis
Neonatal Candidiasis	1 - 2 weeks of age	Scaly red patches, satellite papules/pustules in intertriginous areas, face	KOH showing budding yeast and pseudohyphae, fungal culture Tx: Topical imidazoles	Neonate otherwise well, acquired during delivery or after birth, can have thrush Congenital: erythematous papules, pustules with scaling, widespread with frequent sparing of diaper area + oral mucosa, prematurity, foreign body in cervix/uterus increase risk

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