

Episode 38 Bumps in a Baby

Differential for bumps in a baby:

- 1) Solitary bumps (**MYS**PACE)
 - **M**- milia or mastocytosis
 - **Y**- yellow tinged lesions (juvenile xanthogranulomas)
 - **S**- Spitz nevi
 - **P**- pilomatricomas or pyogenic granulomas
 - **A**- amelanotic nevi or melanomas
 - **C**- calcinosis cutis
 - **E**- epidermal inclusion cysts
- 2) Multiple bumps
 - Molluscum, trichoepitheliomas, syringomas, angiofibromas (adenoma sebaceum in tuberous sclerosis)
- 3) Rare bumps
 - Osteoma cutis, dermoid cysts

Solitary bumps

- Milia
 - 1-2 mm firm white-to-yellow papules on central face
 - Present in > ½ of infants, resolve in handful of weeks
- Mastocytomas
 - Accumulation of mast cells in the skin
 - Fleshy red-to-brown macules, papules, or plaques of varying size on arms, neck, torso
 - 40% present at birth, most appear before age 1, self-resolve over years
 - Darier's sign (up to 90% of cases)
 - Rubbing lesion histamine release erythema and localized swelling
 - Treatment: antihistamines, avoid mast cell triggers
- Juvenile xanthogranulomas (JXGs)
 - Histiocytes ("cell of the tissue")
 - Langerhans cells
 - Antigen-presenting cells that migrate to and from the *epidermis*
 - Mononuclear cells and macrophages
 - Monocytes macrophages upon entering tissues
 - Macrophages function as antigen-presenting cells and phagocytes in the *dermis*
 - Dermal dendritic cells (two subtypes)
 - Type 1 dermal dendritic cells- in papillary dermis, function like macrophages
 - Type 2 dermal dendritic cells- deeper in the reticular dermis, unclear function
 - JXGs are a proliferation of *non-langerhans* cells (macrophages or dermal dendritic cells)
 - JXGs tan to red-orange smooth, dome-shaped papules or nodules on head, neck, and trunk that yellow over time and may ulcerate
 - 90% solitary, 20% present at birth
 - Most common extracutaneous site eye (consider referral to peds ophtho)
 - Association between **juvenile xanthogranulomas (JXG)**, **neurofibromatosis type 1**, **juvenile chronic myelogenous leukemia (JCML)**
 - Most JXGs spontaneously regress in 3-6 years
- Spitz nevi
 - Solitary, smooth, dome-shaped red brown papule between 5-10 mm common on face
 - Decision to excise is controversial
- Pilomatricomas (calcifying epithelioma of Malherbe)
 - Hard papule or nodule on head, neck, upper arms
 - Firm on exam 2/2 calcification, color may be fleshy, pink-red, slightly blue
 - Associated with mutations in *beta-catenin*
 - Multiple pilomatricomas in the same patient consider myotonic dystrophy, Rubinstein-Taybi disease, and Gardner syndrome
- Pyogenic granulomas
 - Friable, red papule that grows quickly over weeks to months at *trauma-prone site* (gingiva, lips, fingers, face)
 - Collarette of scale at periphery clue for dx

- Triggers: minor trauma, pregnancy, medications (e.g. retinoids)
- Amelanotic nevi and amelanotic melanomas
 - Melanomas rare in children and often present as a fleshy or pink-red papule or nodule
 - **Different ABCDE's** than for adults
 - A- amelanotic
 - B- bleeding
 - C- *single* color
 - D- *small* diameter
 - E- evolution
- Calcinosis cutis
 - Calcium deposition in the skin
 - 4 main subtypes
 1. Dystrophic - 2/2 damage (inflammation, trauma) to skin
 - Calcium deposits in juvenile dermatomyositis, CREST syndrome, after heel sticks
 2. Idiopathic - no known cause
 - Scrotal or labial calcinosis, subepidermal calcified nodules (SCNs)
 3. Metastatic- patients have *abnormal* levels of calcium and/or phosphate
 - Chronic renal failure or calciphylaxis
 4. Iatrogenic - caused by healthcare providers
 - Extravasation of calcium gluconate from IV site
- Epidermal inclusion cysts
 - Nodule in hair-bearing area with central punctum and variable size
 - Associated with Gardner syndrome
 - Require surgery to remove

- Very contagious children often have multiple lesions in a cluster on arms or in groin and can self-inoculate
- BOTE (Beginning Of The End) Sign- molluscum lesions become red, inflamed, and angry sign the immune system is working to remove the lesions
- Treatment: cantharidin, topical imiquimod, tretinoin, oral cimetidine

Multiple Bumps

- Molluscum
 - 2-8 mm pearly, flesh to pink papules, often with a central divot or dell, caused by poxvirus
 - Kids with atopic dermatitis are especially prone to molluscum!