Lumps & Bumps in Children

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I have no financial relationships with the manufacturers of any commercial products and/or provider of commercial services discussed in this CME activity.

I will discuss off label use of a commercial product in my presentation.
- For verruca vulgaris and molluscum contagiosum
Practice Change

As a result of attending this lecture, I encourage you to incorporate these changes in your practice:

Change 1: Recognize several different lumps and bumps that can present in a child.

Change 2: Discuss possible work up for a variety of "bumpy" skin lesions that can occur in children.

Change 3: Devise an initial treatment plan for several "bumpy" skin lesions that can occur in children.
Common Lumps & Bumps in Children

- Pilomatricomas
- Dermoid cysts
- Granuloma annulare
- Juvenile xanthogranulomas
- Mastocytomas
- Verruca Vulgaris (warts)
- Molluscum contagiosum
Pilomatricoma

- Benign tumor of hair structures usually seen in children/adolescents
- Solitary, firm (due to calcification) papule or nodule on the face, neck, upper extremities (>50% occur on head and neck)
- Skin colored to slightly discolored
  - Pink, red, or blue tint
Pilomatricoma

- “Tent sign” - multiple facets and angles visualized when overlying skin is stretched
- Variable size
- Usually asymptomatic stable lesions
- Distinct histology
- Definitive treatment: surgical excision
“Tent Sign”
Dermoid Cysts

- Congenital subcutaneous lesions occurring along embryonic fusion lines
  - Results from faulty development
- Congenital, but may not be noticed until later in infancy or early childhood with enlargement
- 1-4 cm firm, skin colored, non-tender, fixed subcutaneous nodules
Dermoid Cysts

- Common location: upper lateral forehead or scalp
- Treatment: surgical excision
- Midline lesions may be at risk for intracranial connection
- Midline dermal cysts should have radiologic imaging prior to surgical excision to rule out an intracranial connection
Granuloma Annulare

- Skin colored subcutaneous papules or nodules often grouped in a ring configuration
  - No scale! (often misdiagnosed as ring worm)
  - Borders may be elevated
- Commonly located on feet, ankles, shins, & hands
- Usually asymptomatic
- Enlarge over time with central clearing
  - Size range from 0.5 cm to 3-5 cm
Granuloma Annulare

- Unknown etiology
- Histology is diagnostic
- Usually resolve spontaneously over many months to years
- Limited therapeutic options
Juvenile Xanthogranuloma

- Form of non-Langerhans cell histiocytosis
- Benign, self limited disorder seen in infants & children
- Usually appears by 1 year, can be present at birth
  - Can increase in number over time
- Firm, round papule or nodule
  - May be solitary or multiple
  - Color ranges from pink to orange, yellow or tan
  - Variable sizes
Juvenile Xanthogranuloma

- Commonly located on the head, neck, or trunk
- Usually asymptomatic
- Ulceration and crusting rarely occurs
- Classic histologic appearance
- May rarely have extracutaneous involvement with the eye being the most common location
- Spontaneous regression occurs over 3-6 years
- No therapy needed
  - Surgical excision is definitive therapy
Regressing JXG
Juvenile Xanthogranuloma

- Screening eye exam recommended if under 2 years of age and has multiple head or neck lesions
- If numerous cutaneous lesions consider workup for further visceral involvement
Solitary Mastocytoma

- Represent 10-30% children with mastocytosis
- May be solitary or multiple (5 or fewer lesions)
- Present at birth or appears within first 2 years of life
- Yellow to red-brown round to oval, slightly raised papule, plaque or nodule (peau d’orange texture)
- Average size 1 to 5 cm
- Most commonly located on arms, neck, and trunk
Mastocytoma

- May have intermittent blistering, urtication, & itching
- Positive “Darier’s sign”
  - Stroking leads to urtication (hive formation)
- Prognosis
  - Urtication and blistering improves over time
  - Usually involutes spontaneously over several years
Positive Darier’s Sign
Treatment

- Oral antihistamines & topical steroids
- Avoidance of mast cell degranulators
  - Medications:
    - Aspirin, alcohol, dextromethorphan, narcotics, polymyxin B, procaine, amphotericin B, atropine, thiamine, radiographic contrast media containing iodine, and decamethonium
  - Physical stimuli (cold, heat, sunlight, friction/rubbing)
Urticaria Pigmentosa

- 70-90% of childhood mastocytosis
- Numerous brown/red macules or plaques
  - Usually densely distributed on trunk or acral areas
- Systemic involvement rare
  - Flushing, diarrhea, fainting, headache, bone pain
- Prognosis is good
  - Most children will have resolution or reduction of lesions and symptoms by adolescence
Verruca Vulgaris (Warts)

- Also known as common warts
- Occur in approximately 10% of children
- Caused by Human Papillomavirus (HPV)
  - Over 80 different HPV types
- Rough skin colored firm papules
  - Common on hands, feet, face
- Therapeutic challenge
Treatment Options

- Active Nonintervention
  - Warts may spontaneously resolve
    - 2/3 of cases may clear within 2 years
  - Need to consider cost and side effects of treatment
  - No “ideal” single therapy
Treatment Options

- Tissue Destruction
  - Topical Salicylic acid (17-40%)
  - Duct tape?
  - Cryotherapy with liquid nitrogen
  - Immune therapy
  - Laser?
Mollusum Contagiosum

- Cutaneous infection caused by Pox virus
- Common in children <8 years old
  - May affect up to 5% of children in the US
- Skin to skin transmission and autoinoculation
- Often seen more commonly in children with atopic dermatitis
- Usually spontaneously resolve within 2 years
Molluscum Contagiosum

- Skin colored 2-5 mm erythematous smooth, dome shaped papules
  - May have central umbilication
- Usually located on the trunk, axilla, or extremities
- Commonly found in intertriginous regions (autoinoculation)
- Differential diagnosis: folliculitis, comedones, warts
Molluscum Contagiosum

- Surrounding skin may be erythematous (molluscum dermatitis)
- May develop pruritus or pain
- May rarely develop associated secondary infection
- Inflammation usually precedes resolution
  - “BOTE” sign-beginning of the end
- May leave depressed scar/pit with or without treatment
Molluscum Treatment

- Gentle skin care
  - Mild soap
  - Bland emollient
- Antipruritics
  - Diphenhydramine, hydroxyzine
- Low potency topical steroid for molluscum dermatitis
  - 1% hydrocortisone ointment
Molluscum Treatment

- No FDA approved treatments for molluscum
- Active non-intervention
  - Usually Self Limited
- Destruction (physical and chemical)
  - Cryotherapy
  - Curettage with topical anesthesia
  - Cantharidin
    - Applied in office washed off with soap and water in 3-4 hours
- Topical irritants
- ? Immune modulator
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References


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References


