LUMPS AND BUMPS IN CHILDREN

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PRACTICE CHANGE

● Knowledge gap: practitioners are not always familiar with etiologies of cutaneous nodules in order to be able to distinguish benign lesions from more serious lesions.
● Following this session, participants will be familiar with the differential diagnoses of cutaneous nodules and be better able to differentiate benign vs malignant lesions.
### Incidence of Skin Nodules

- Epithelial cysts 60%
- Pilomatricomas 10%
- Neurofibromas 3%
- Lipomas 3%
- Lymphangiomas 3%
- Granuloma annulare 3%

### Incidence of Skin Nodules (Cont)

- Juvenile xanthogranulomas 2%
- Mastocytomas 2%
- Fibromas 2%
- Malignant tumors 1%
- Miscellaneous lesions 11%

### Predictors of Malignancy

- Rapid, progressive growth 65X
- Ulceration 2X
- Fixed to deep fascia 2X
- Larger than 3cm and firm 2X
- Occurs in the first 30 days of life 2X
EPITHELIAL CYSTS

- Firm, slow growing nodules
- Usually solitary
- Adolescents-seen on scalp, face, neck, and upper back and chest
- Neonatal period-seen on eyebrow or scalp

MILIA

- 1-2mm superficial cysts
- Forehead cheek and nose are the most commonly affected areas
- Can occur in scars or burns
- May resolve spontaneously

References

DERMOID CYSTS

- Embryonic sequestrations of skin
- Occur along the lines of embryonic closure
- Epithelial lining
- May contain mature sebaceous glands, eccrine sweat glands, or mature hair

Reference


PILOMATRIXOMAS

- Adnexal tumors
- Calcifying epithelioma of Malherbe
- Usually solitary
- Firm
- Typically, face or proximal extremities
- Benign hyperplasia of the hair matrix cells
- Calcium deposits can be present


**NEUROFIBROMAS**

- Usually solitary when not associated with NF-1
- “Buttonhole” sign
- Overgrowth of nerve sheath cells
LIPOMAS

- Soft, subcutaneous nodules
- Unattached to the overlying skin
- Usually solitary
- Generally begin in adolescence
- Most commonly on the neck, upper chest, and arms
- Composed of fat cells

LYMPHANGIOMAS

- Usually solitary
- Compressible irregular swellings
- Slow progressive growth

References

GRANULOMA ANNULARE

- Annular lesions or deep firm nodules
- Skin-colored or violaceous
- Located on ankles, wrists, or digits
- Collagen degeneration
- Spontaneous remission

Reference


RHEUMATOID NODULES

- Uncommon in children
- Firm, subcutaneous nodules overlying a joint
- Occur in RA, ARF, and SLE
JUVENILE XANTHOGRANULOMAS

- Often multiple
- Orange to yellow-brown color, firm
- May be present at birth, typically occur in infancy
- Iris lesions can mimic retinoblastomas
- Accumulation of lipid-laden macrophages
- Spontaneous involution in 1-2 years

Reference


MASTOCYTOMAS

- Red or red-brown nodules
- Multiple in urticaria pigmentosa
- May urticate or form a blister
- Composed of mast cells
- Avoid vigorous rubbing, hot baths, aspirin, alcohol, ibuprofen, and codeine
- Cyproheptadine for treatment if needed
DERMATOFIBROMAS

- Firm, pigmented nodules
- Occur especially on the lower legs
- Lateral pressure can produce a central dimple
- Can occur following minor trauma

References


Reference

- Mastokids website-www.mastokids.org
- The Mastocytosis Society-www.tmsforacure.org
HYPERTROPHIC SCARS

- Raised scars in sites of trauma
- Firm
- May continue to enlarge for one year
- Some spontaneous resolution

KELOIDS

- Firm raised lesions
- Enlarges beyond the site of trauma
- May become pedunculated
- Shiny surface present
- Especially located on earlobes, sternum, neck
- Autosomal dominant inheritance

PYOGENIC GRANULOMAS

- Misnomer
- Usually solitary
- Dull-red lobulated lesions
- Surface may erode, crust and/or bleed
- Typically face, hands, and fingers
PYOGENIC GRANULOMA-TREATMENT

- Surgical removal
- Timolol

PYOGENIC GRANULOMA-REFERENCES


SMOOTH MUSCLE HAMARTOMAS

- Usually present at birth
- Increase in overlying hair
- Firm, irregular lesions
- Rippling may occur with striking
- Composed of bundles of smooth muscles
Reference


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