Mullerian Papilloma in a 3-year old, An Approach to Diagnosis

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Conflict of Interest Disclosure

We have no potential conflicts of interest to report.

Case

- 3 year-old girl presents with 15 months of intermittent vaginal bleeding and recent onset of a foul odor.
- No relevant past medical history or family history of anything similar.
Vaginal bleeding in a child

- Foreign body
- Abuse
- Precocious puberty
- Urethral prolapse
- Vaginal trauma

Case

- Physical exam normal-no breast development, pubic or axillary hair.
- Normal lab values for a prepubescent girl
  - LH 0.17 mIU/ml, FSH 1.85 mIU/ml, Estradiol <1 pg/ml
- Office exam: polyploid tissue protruding through the hymen on valsala

Evaluation

- Pelvic sonogram normal
- MRI without significant findings
- Exam under anesthesia and vaginoscopy: 1 cm cervical mass on anterior lip
What is a Mullerian Papilloma?

- A rare benign tumor of the cervix or vagina typically found in prepubescent girls.
- Clinically similar to botryoid rhabdomyosarcoma
- Important to distinguish this benign lesion from cancers

Histology
Benign mesonephric papillomas?

- Historically there has been a debate over the origin of these tumors
- Originally thought to come from mesonephric remnants
- Liittges and Liibke (1994) investigated the immunohistochemistry staining patterns of the papillomas demonstrating a mullerian origin

PAX 8

- Paired-box gene
- Involved in embryogenesis of thyroid, Mullerian, and renal/upper urinary tracts
- PAX 8 immunostain is used to demonstrate the origin of many different epithelial tumors
Ruling out other cancers

- Given the appearance and location of Mullerian papillomas, it is important to rule out dysplasia and cancer.
- p16 is a surrogate for high risk HPV infection.
- Neoplasms staining negative for p16 indicates that they are not associated with HPV infection.

Conclusions

- Excellent prognosis & recovery for most patients if completely excised.
- Mullerian papilloma should be considered in the differential diagnosis for vaginal bleeding in a young girl.
- PAX 8 staining may be considered at time of histological examination to help establish the diagnosis.
- p16 staining is valuable in order to rule out high risk HPV association definitively.