

Quiz 2 (2019-20) Answers

Q. 1-2: Mucosal Schwann cell hamartoma; 3-4: Adenomatoid tumor; 5-6: Nephrogenic adenoma

Q. 1 (2)

Q. 2 (4)

Q. 3 (1)

Q. 4 (3)

Q. 5 (1)

Q. 6 (4)

Q2. This lesion may be associated with

1. Cowden syndrome - Ganglioneuroma
2. V600E BRAF mutations – Serrated epithelium in mucosal perineuromas – similar to serrated polyps and hyperplastic polyps
3. Carney's triad – (Epithelioid gastric GIST, paraganglioma and pulmonary chordoma)
4. No specific inherited syndrome, to date – mucosal Schwann cell hamartoma.

Q5. What is your diagnosis?

1. Nested urothelial carcinoma – usually expresses p53, and may have admixed typical urothelial carcinoma
2. Prostatic adenocarcinoma – will not express CK7, pax 8
3. Urothelial carcinoma with glandular differentiation – usually have admixed typical urothelial carcinoma
4. Nephrogenic adenoma

Mucosal Schwann cell hamartoma

- Sporadic polypoid lesions in colon, predominantly sigmoid and rectum
- Middle aged to elderly.
- Female predominance
- Pathologically
 - Mean size: 2.5 mm
 - Composed of spindle cells within lamina propria that entrap colonic crypts
 - Irregular border with adjacent uninvolved lamina propria
 - Composed of uniform, bland spindle cells with elongated or wavy nuclei with fine chromatin, eosinophilic cytoplasm and indistinct cell borders

- Lesional cells strongly and diffusely positive for S100
 - Negative for GFAP, EMA, CD34, SMA and KIT
- Mucosal perineuromas – positive for EMA, and negative for S100

Adenomatoid tumor

- Benign genital tract tumor of mesothelial origin, seen in both men and women.
- In women they occur in uterus, fallopian tubes and ovary
- Can also occur in extragenital peritoneum – omentum or mesentery.
- Macroscopically:
 - Small, firm nodules
- Microscopically
 - Composed of anastomosing gland like spaces with some degree of cystic dilatation
 - The spaces are lined by single layer of low cuboidal or flattened cells with eosinophilic cytoplasm and oval nuclei.
 - The second most common pattern is solid arrangement of neoplastic cells with abundant eosinophilic cytoplasm
- Immunohistochemistry
 - Positive for
 - cytokeratin
 - WT1, calretinin and CK5/6
 - HBME1 and thrombomodulin
 - CD31 negative

Nephrogenic adenoma:

- Etiology/pathogenesis
 - Secondary to urothelial injury
 - Combination of renal tubular cell seeding and metaplasia, linked to etiopathogenesis
 - Frequent in renal transplant patients
- Microscopically
 - Broad spectrum of architectural patterns
 - Tubular; small tubules lined by low columnar to cuboidal cells
 - Single cells may have minute lumen, mimicking vascular channels or signet ring cells
 - Papillary pattern
 - Cystic pattern: with dilated tubules
 - Diffuse pattern: with sheet like growth
 - Flat pattern: with single layer of flat cuboidal cells on surface
 - Cytologically bland, cuboidal cell
 - Cytoplasm varies from eosinophilic to clear
 - Nucleoli may be present
 - Degenerative atypia may be present
- Immunohistochemistry
 - Cytokeratin and EMA
 - Pancytokeratin
 - CK7
 - High molecular weight cytokeratin

- May express PSA and AMACR
 - S100A1
- Differential diagnosis
 - Prostate ca
 - Clear cell adenocarcinoma of bladder
 - Urothelial carcinoma with glandular differentiation
 - Nested variant of urothelial ca
 - Secondary adenocarcinomas