

QUIZ 4 (2019-20) Answers

Ritu Bhalla

1 (1)

2 (4)

3(2)

4 (3)

5 (4) All of the above

6 (1)

7 (3)

8. (5)

2. What statement is associated with this lesion?

1. History of trauma/prior instrumentation – inflammatory myofibroblastic tumor
2. Germline mutation in SDH gene - paraganglioma
3. t(2;13) translocation –alveolar rhabdomyosarcoma
4. High recurrence and metastatic rate

7. The following are the associations of the choices given:

1. Squamous metaplasia (can be seen in Schistosomiasis)
2. Michaelis-Guttman bodies (Malakoplakia)
3. Expression of PSA and AMACR by the lesional cells (nephrogenic adenoma)
4. Almost exclusively seen in middle aged and older females (Interstitial cystitis)

Q. 1-3, Leiomyosarcoma

Rare but most common primary vesical sarcoma

Associated with high recurrence and metastatic rate

Microscopically: fascicles of spindle shaped cells, with common pleomorphism and hyperchromasia.

Rarely marked nuclear atypia seen

Mitosis and necrosis common.

Ancillary tests:

Express SMA, Caldesmon, Desmin

Expression of cytokeratins +/-, if present, usually focal

No expression of skeletal muscle markers

Differential diagnosis (Main differentials):

Sarcomatoid urothelial ca: expression of epithelial markers including p63 and HMWCK

Inflammatory myofibroblastic tumor: ALK1 positive
 PECOMA

Q. 4, Cystitis glandularis with intestinal metaplasia and focal adenomatous change:

Glandular metaplasia of the epithelial lining of von Brunn’s nests and cystitis cystica.

If mucin producing cells similar to intestinal type goblet cells, this variant is called as cystitis glandularis with intestinal metaplasia

Some cases with intestinal metaplasia may be associated with abundant mucin extravasation

There may be overlap between well differentiated adenocarcinoma, and some examples of intestinal metaplasia

	Intestinal metaplasia	Well diff adenoca
Mucin pools	Usually focal, and devoid of neoplastic epithelium within the mucin pool	Usually extensive
Muscularis propria involvement	Usually confined to lamina propria, if muscularis propria involved – usually superficial	Usually deep and extensive
Atypia and mitosis	Minimal, cells usually bland	Can be extensive

The significance of **focal** adenomatous changes is unknown, however close follow up is warranted.

Q. 5-8, Schistosomiasis

Schistosomiasis:

- Caused by water borne trematode
- Initially enters host through skin within water
- Schistosoma hematobium infects bladder
- Endemic in Mediterranean and Sub-Saharan Africa
- Presentation: Hematuria-most common
- Morbidity and mortality is determined by parasitic burden, risk of reinfection and chronicity
 - Untreated chronic infection has serious morbidities
 - Hydronephrosis
 - Pyelonephritis
 - Renal failure
 - Bacterial coinfection
 - Squamous cell carcinoma (most common)
 - Urothelial carcinoma or adenocarcinoma
- Microscopically
 - Numerous ova, which may calcify over time
 - Associated with
 - acute and chronic inflammation
 - granulomatous inflammatory response

- Eggs may calcify over time
- Maybe associated with
 - keratinizing squamous metaplasia and dysplasia;
 - intestinal metaplasia
- *Schistosoma hematobium*: terminal spine
- *S. mansoni*: lateral spine
- *S. japonicum*: no spine or small inconspicuous subterminal spine
- *S. mansoni* and *S. japonicum*) typically intestinal based infections

- Ova deposited in the veins of muscularis propria, where they become permeable and
 - Infiltrate the bladder tissue and incite inflammatory response
- Treatment
 - Drugs – medicines with antischistosomal effects