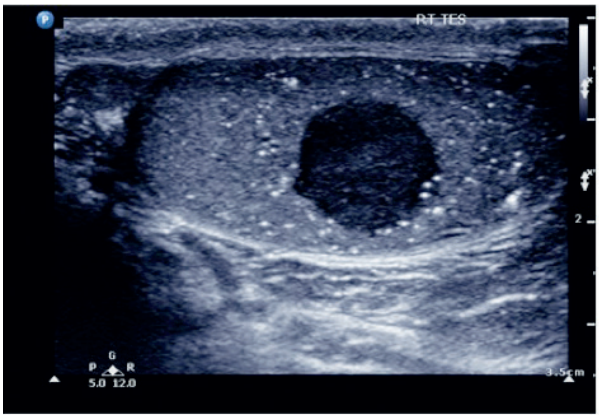
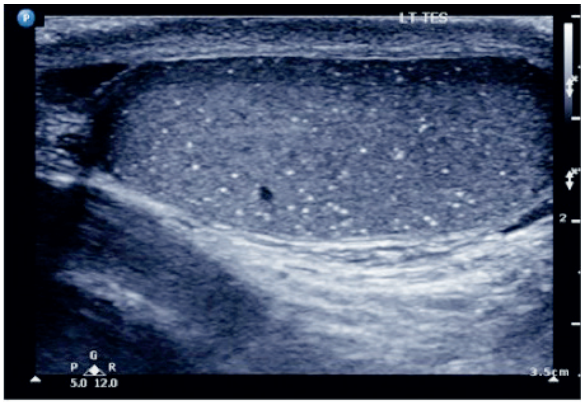
Testicular cancer

Case 1

1. What does the ultrasound show?
2. What further imaging does this patient require?
3. Which tumour markers should be checked?
4. What is the half-life of these markers?
5. What does an elevation in these markers mean?



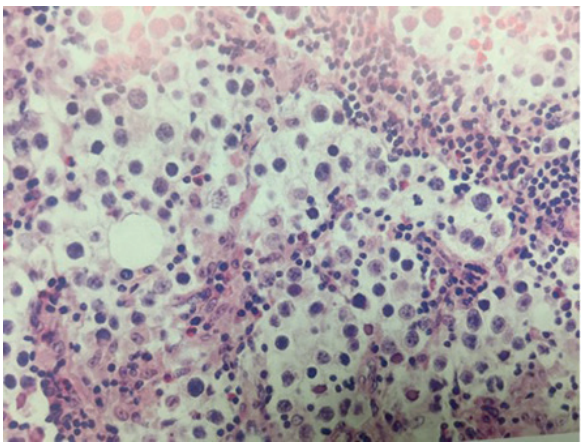


Case 2

1. What is this pathology?
2. How is this pathology defined?
3. When is this pathology a risk factor for testicular cancer?
4. If they have a risk factor and microlithiasis, what is the preferred treatment option?

Case 3

1. What does this testicular histological specimen show?
2. What are the prognostic factors for occult metastatic disease in seminoma?
3. How are the different prognostic groups for metastatic seminoma defined?
4. What are the treatment options for stage 1 seminoma?



Testicular cancer – answers

Case 1

1. Right-sided testicular mass with associated microlithiasis.
2. Staging CT chest / abdomen and pelvis.
3. α-Fetoprotein (ALP), β-human chorionic gonadotrophin (HCG), lactic dehydrogenase (LDH).
4. α-FP is 5-7 days, β-HCG is 24-36 hours.
5. α-FP: implies yolk sac element, non-seminomas germ cell tumours (NSGCT) (50-70% elevated), NOT elevated in seminoma. Differential: alcohol abuse, viral hepatitis, hepatotoxic drugs.
   β-HCG: implies syncytiotrophoblastic elements, choriocarcinoma, NSGCT (40-60% elevated), seminoma (up to 30%).
   LDH: less specific marker, its concentration is proportional to tumour volume.

Case 2

1. Microlithiasis.
2. Five or more echogenic foci per high powered view, in either or both testes.
3. Contralateral testis cancer, small testicle (<12mls), infertility, cryptorchidism or atrophic testis.
4. Testicular biopsy.

Case 3

1. Testicular seminoma: characteristically shows a combination of large neoplastic cells with clear cytoplasm and lymphocyte-rich stroma. Some tumours have fibrosis due to a histiocytic granulomatous response.
2. Tumour size >4cm, invasion of the rete testis.
3. Good prognosis: no non-pulmonary visceral metastasis, normal αFP, any β-HCG/LDH.
   Intermittent prognosis: non-pulmonary visceral metastasis, normal αFP, any β-HCG/LDH.
4. Surveillance or one course adjuvant carboplatin-based chemotherapy (single-dose carboplatin is less toxic and as effective as adjuvant radiotherapy).

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