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Amyloid

Micro

- These are bladder biopsies with partial denudation of the surface urothelium.
- Where present, the urothelium shows reactive changes.
- The lamina propria contains deposits of amorphous eosinophilic material consistent with amyloid.
- Haemorrhage is seen superficial to these deposits.
- There is no evidence of in-situ or invasive malignancy.

Diagnosis

- Amyloidosis of the bladder

Further work/comment

- Congo red stain is confirmatory and shows apple green birefringence when exposed to polarized light.
- Cresyl Violet stains also show birefringence under UV light.
- This is likely to be AL type amyloid, as amyloidosis is almost always primary in bladder.
- EM would show non-branching, randomly distributed, rigid fibrils.
- The vascular reaction superficial to the amyloid explains the provided history of haematuria.
- The case needs referral to the National Amyloidosis Centre-Royal Free Hospital.
- Immunohistochemistry would enable exclusion or confirmation of a light chain associated cause- usually associated with a paraprotein (Urine-Bence Jones) or serum electrophoresis with associated immune-paresis
- Skeletal survey will reveal punched out lytic lesions
- Bone marrow trephine would show an abnormal proliferation of plasma cells