An unusual case of primary urethral amyloid

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Authors: Downey KL, Salt B, Shambayati B, Patel S.
Patient: 78 years, male

Clinical History:

Amyloid is a rare condition characterised by extracellular deposition of proteinaceous material. We describe a rare case of primary amyloid affecting the male urethra.

Imaging Findings:

A 78 year old male presented with haematuria, haematospermia and bladder outflow obstruction (BOO), symptoms in keeping with urethral carcinoma. An ascending urethrogram (Fig. 1) and a cystourethroscopy with biopsy were subsequently performed. Urethral structuring and irregularity were observed at both investigations and a staging CT of the chest abdomen and pelvis was requested due to the high suspicion of malignancy. The CT examination was reported as normal and primary amyloidosis of the penile urethra was diagnosed at histopathological analysis (Fig. 2).

Discussion:

Primary amyloid affecting the urethra is a rare condition mimicking malignancy on clinical presentation, at urethroscopy and on diagnostic imaging. First described by Tilp, a German pathologist in 1909, only approximately 40 cases have been reported world-wide. The pathophysiology is not completely understood and chronic inflammation or infection is thought to be a possible predisposing factor. The mean age at presentation is 53 years and the disease is much more common in males. Less than 5 cases have been reported in females in which renal, rather than urethral amyloid is much more frequent. The majority of cases of amyloid occur in the penile urethra. Amyloid affecting the prostatic or membranous urethra is very rare. Presenting features of urethral amyloid are in keeping with urethral carcinoma and include haematuria, haematospermia, BOO, palpable mass within the penile shaft and bloody urethral discharge. At least one case has been described in which a urethrectomy was performed in a case of mistaken identity. If suspected, the most effective way of imaging urethral amyloid is with urethrography. The imaging features of amyloid are not well documented and include nodularity and numerous strictures. Histology is required to make the diagnosis and management is by conservative management or local excision.

Differential Diagnosis List: Primary amyloid of the male urethra.

Final Diagnosis: Primary amyloid of the male urethra.

References:


Figure 1

Description: Appearances of primary amyloid at ascending urethrogram: Irregularity and intermittent strictures. Origin:
Description: Congo red stained histopathological section showing deposition of brick red amyloid material in urethral mucosa Origin: