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Primary Localized Amyloidosis of the Bladder
—A case report—

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Primary localized amyloidosis is a rare disease with an excellent prognosis in most cases. We report a case of primary localized amyloidosis of the bladder that was treated with transurethral resection.

Key Words : *Amyloidosis , Bladder.*

INTRODUCTION

Amyloidosis may be defined as the extracellular deposition of the fibrous protein amyloid in one or more sites of the body. It was named by Virchow in 1854 on the basis of its color after staining with iodine and sulfuric acid. In 1897 Solomin first described bladder amyloidosis at autopsy.

Primary localized bladder amyloidosis is a rare condition. The symptoms, gross hematuria and tumor like appearance in cystoscopy, may mimic infiltrating carcinoma of the bladder. Diagnosis is based on histopathological examination. The treatment is transurethral resection, electrocoagulation and follow-up.

CASE PRESENTATION

A 53-year-old woman with a one month history of intermittent total gross hematuria and dysuria, was admitted to the Department of Urology. Besides this condition she was considered healthy. Physical examination and blood chemistry were normal. Urinalysis showed hematuria and pyuria. An intravenous urogram was normal.

At cystoscopy, moderately trabecullated bladder wall, about 0.5cm sized yellow colored small sessile masses throughout the bladder neck, clinically suspicious of neoplasia, were noted. So bladder neck was markedly narrowed. For teratment, transurethral resection was performed so all masses was completely resected. During operation, there was no other particular problems without scanty bleeding. Pathological examinations of the transurethral biopsy specimens revealed numerous irregular and sheet-like amorphous eosinophilic materials, which were especially prominent in the lamina propria and extended into the muscularis (Fig. 1). Apple-green birefrigence was observed in the section stained with alkaline Congo Red under a polarized light (Fig. 2). Fine, nonbranching rigid amyloid fibrils were also observed with an electron microscope (Fig. 3).

Subsequent examinations excluded systemic amyloidosis and secondary to chronic inflammatory conditions. Bence-Jones protein was not detected in the urine and rheumatoid factor was negative. Amyloid deposits were not found in the rectal biopsy specimen. Diagnosis was primary localized amyloidosis of the bladder.

The patient has been observed for 2 years without any further urinary symptoms or recurring evidence of bladder mass.

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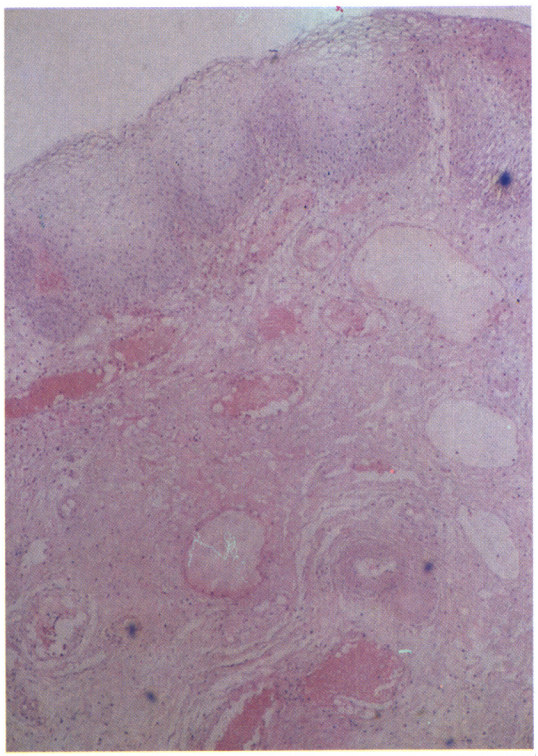

Fig. 1. Photomicrograph showing numerous irregular mass like depositions of bladder mucosa(H & E,×40).

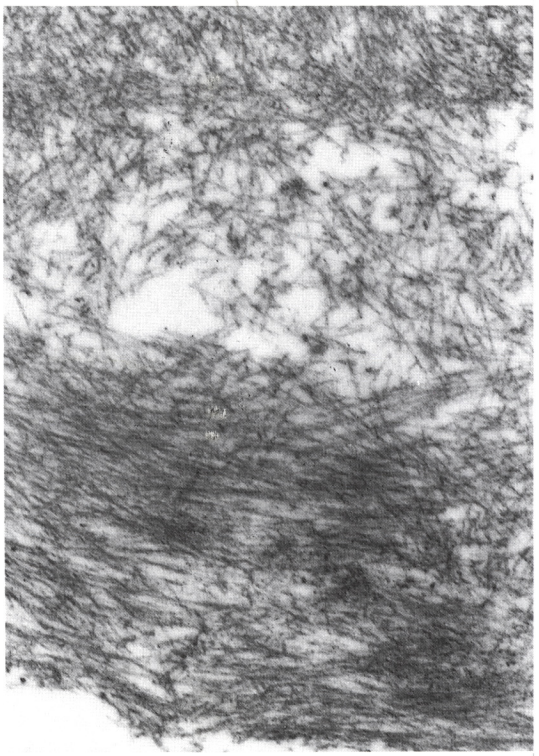

Fig. 3. Fine, nonbranching fibrils(Hitachi-600 transmission EM,×30,000).

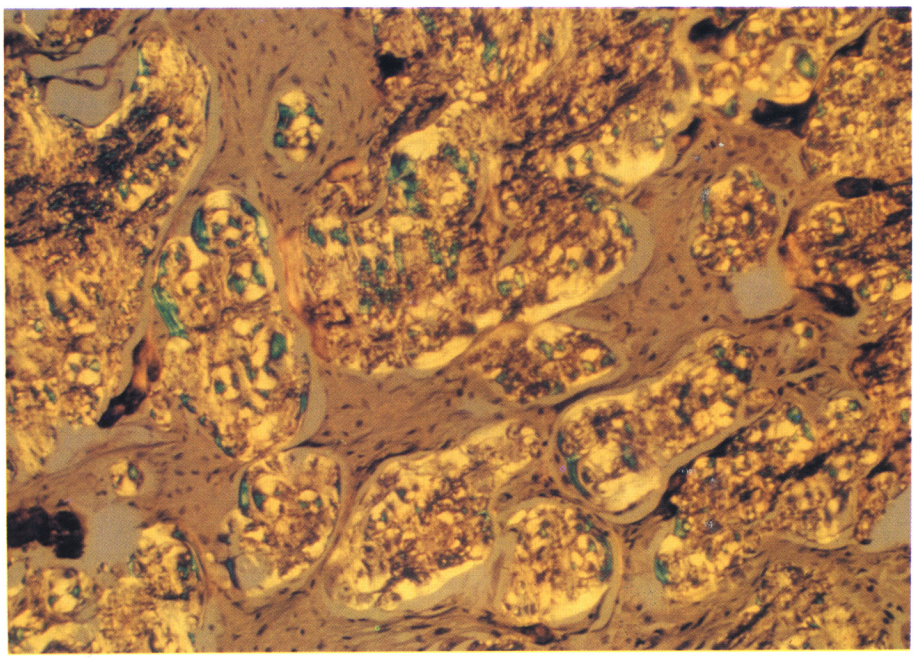

Fig. 2. Amyloid materials reveal apple green birefringence under the polarized microscope(Congo red,×40).

DISCUSSION

Primary localized bladder amyloidosis is a rare disease (Fujihara and Glenner, 1981 ; Grainger et al., 1988 ; Butterworth and Hart, 1990). The etiology is unknown and few studies have attempted to classify amyloid type (Johnston and Ewen, 1990 ; Loke et al., 1987). The cystoscopic appearance has varied from solid, circumscribed, elevated, sessile lesions to lesions with ulceration and congested mucosa with petechial hemorrhage (Ahmad et al., 1986). But there were sessile lesions without ulceration and trabecullated bladder mucosa rather than congested mucosa in our case. It often resembles an infiltrating neoplasm at cystoscopy. The lateral wall is most commonly involved (Malek et al., 1971). The bladder neck was mainly involved in our case. Amyloidosis of the urinary bladder is impossible to diagnose without biopsy and histologic examination. In histologic examination, amyloidosis of urinary bladder must be distinguished from hemorrhagic cystitis.

Primary localized amyloidosis appears to be more common than secondary disease. Investigation to exclude systemic disease is mandatory. The prognosis of primary localized amyloidosis of the bladder appears to be good and better than systemic amyloidosis (Malek et al., 1971 ; Abramovici et al., 1977 ; Mead et al., 1982). Management is by transurethral resection and symptomatic therapy. Our patient was treated by TUR and associated antibiotics therapy, so all mass and symptom was disappeared. And intravesical dimethyl sulfoxide treatment seems to be useful in recurrent profuse macroscopic hematuria and continuous milder bleeding (Nurmi et al., 1990 ; Tokunaka et al., 1986). For follow-up, periodic cystoscopic examination, biannually, is mandatory. It is of interest to the urologist because its clinical appearance in the lower urinary tract almost always mimics a tumor of the involved organ and, as such, poses a problem of management.

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