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CASE REPORT

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Chondroma of the bladder

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Abstract This case report describes a chondroma of the bladder in a 63-year-old woman with clinical complaints of pain in the left fossa iliaca. The lesion was a tumour with a lobulated growth pattern composed of chondrocytes embedded in a chondroid matrix. Neither mitotic figures nor increased cellularity were present. Nuclei were inconspicuous. Immunohistochemical examination showed reactivity for S100 and vimentin.

Key words Chondroma · Urinary bladder

Introduction

Benign chondroid neoplasms of the bladder wall have not been described in the literature. Most of the few related publications mention chondrosarcoma [1].

We present the case of a chondroid neoplasm with no malignant features, which was diagnosed as a chondroma.

Clinical history

A 63-year-old woman with an unremarkable medical history underwent urological investigation following complaints of pain in the left fossa iliaca. Excretory urography was normal. The echography was suggestive of a papilloma of the urinary bladder. A CAT scan was negative.

Cytoscopic examination revealed no urothelial lesions. The ventral dome of the bladder showed a submucosal mass bulging into the lumen. A transurethral resection was performed. The mass consisted of friable white tissue over the whole thickness of the bladder wall. The follow-up of the patient was uneventful.

Materials and methods

The specimen was fixed in 10% buffered formalin, embedded in paraffin and stained with haematoxylin and eosin.

Immunohistochemical studies were performed on paraffin-embedded tissue sections according to routine procedures with antibodies (Table 1) against cytokeratin (AE3-AE1), S100, vimentin (V9), p53 (DO7) and Ki67 (MIB-1). Antigen retrieval was applied for cytokeratin, p53 and Ki67 staining.

Pathological findings

Histological examination of the curettage specimens showed bladder tissue covered with normal urothelial epithelium. The underlying stroma and the muscle wall were replaced by a lobular proliferation of chondroid tissue with no marked cellularity and no atypical features (Fig. 1). The cells were embedded in a chondroid matrix (Fig. 2). The solitary nuclei were small and uniform. There were no mitotic figures.

Immunohistochemical staining for S100 and vimentin was positive (Fig. 2), while staining for cytokeratin was negative (Table 1).

There was no nuclear positivity for p53 or for Ki67. The totality of resection was difficult to establish.

Table 1 Antibodies used in the immunohistochemical studies

Antibody	Result	Source
Cytokeratin	–	Dako, Denmark
S100	+	Dako, Denmark
Vimentin	+	Dako, Denmark
p53	–	Dako, Denmark
Ki67	–	Dako, Denmark

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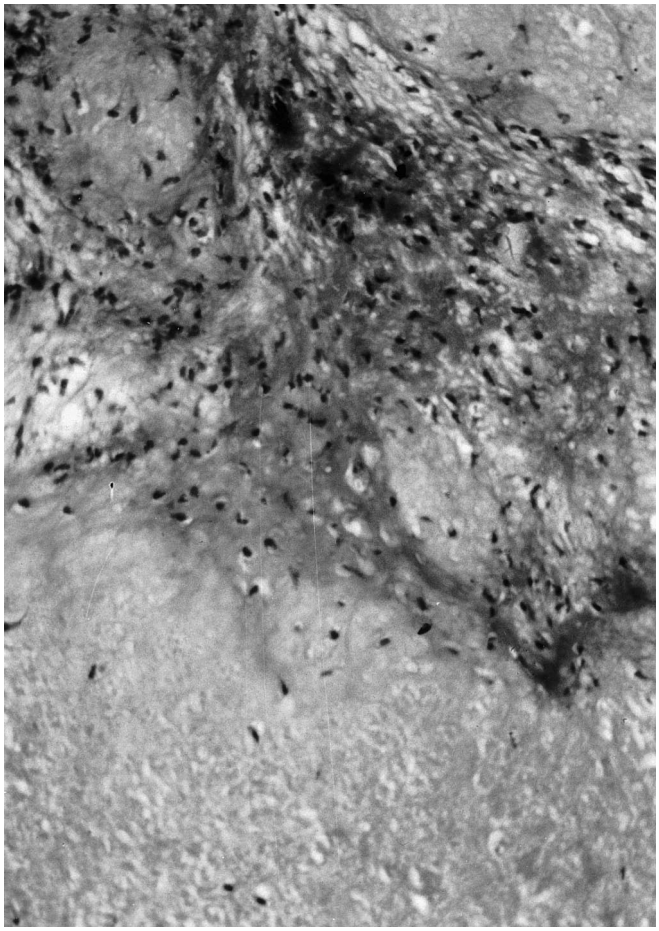

Fig. 1 The tumour consists of chondroid cells. It is lobulated and exhibits focal myxoid change of its stroma

Discussion

The few chondroid neoplasms of the bladder described in the literature are considered to be chondrosarcomas [1]. The majority of benign mesenchymal neoplasms of the bladder are leiomyomas, haemangiomas or neurofibromas. In the rare reports of other benign soft tissue tumours there is no mention of chondroid neoplasms [2, 3]. To the best of our knowledge, we are the first to describe a benign chondroid neoplasm of the bladder considered to be a chondroma. Histology showed a lobular proliferation of chondrocytes within a chondroid matrix without malignant features, which was immunohistochemically reactive for S100 protein and vimentin. The follow-up of the patient was uneventful.

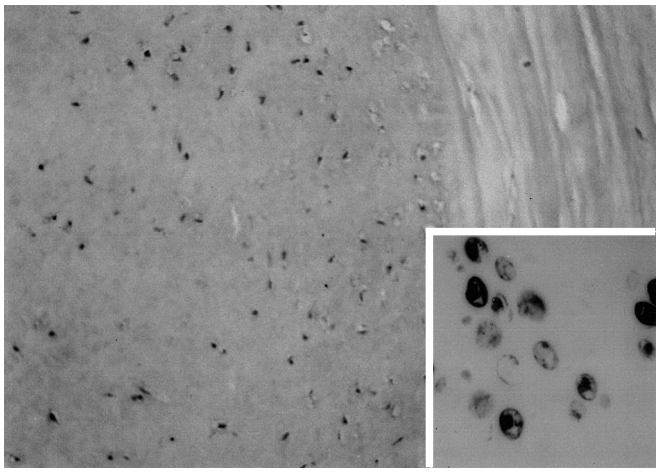

Fig. 2 At low magnification the lesion is seen to be well circumscribed and made up of chondroid cells embedded in a chondroid matrix. Inset cytoplasmic immunoreactivity for S100 in the chondrocytes

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