has only been reported once previously, in a follicular lymphoma⁴. Fibrillary matrix has traditionally been considered an important clue to the diagnosis of neuro-epithelial tumours¹. The positivity for LCA, B-cell markers and monotypic immunoglobulin establishes unequivocally the diagnosis of B-cell lymphoma in our case. Although the possibility of ganglioneuroblastoma was not seriously considered because of the patient's age, this possibility would certainly have been entertained if the tumour had occurred in a child.

Ultrastructurally, the present case falls within the spectrum of filiform large cell lymphoma, which is characterized by profuse cytoplasmic projections on the cell surface^{3,5}. However, filiform lymphomas have not been reported to show distinctive light microscopic features. In the present case, the cytoplasmic processes of the lymphoma cells were so abundant and aggregated that they were recognizable as eosinophilic fibrillary matrix on conventional histological sections. Since the matrix is rich in cell membrane, positive staining with leucocyte markers is readily explainable.

Given the wide range of histological appearances that large cell lymphoma can assume, it is important not to exclude malignant lymphoma from consideration for tumours showing unusual patterns such as presence of fibrillary matrix and apparently cohesive growth.

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BRIEF REPORT

Mixed cloacogenic carcinoma of male urethra

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Introduction

Carcinoma of the male urethra is a rare tumour¹. Tumours arising from the posterior urethra are usually of transitional cell type whereas those emerging from the anterior urethra are most commonly of squamous cell type², although some other rare types have also been reported¹.

Like the anorectal junction, the presence of cloaco-

genic carcinoma is possible, originating from embryological remains at the distal portion of the urethra. There are only two cases of this tumour reported in the literature^{3,4}. In this paper we describe a further case.

Case report

A 71-year-old man presented with a 3-year history of dysuria, bloody discharge through the meatus, progressive urinary obstruction, and painless enlargement of the distal penis. The most relevant datum in the past history was a gonorrhoea infection 20 years ago.

Urethrographic studies showed an irregular stricture and ultrasonographic studies revealed a solid mass of 6.5 cm, consistent with carcinoma, surrounding and

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narrowing the distal urethra. There was no clinical evidence of metastases. A total penectomy was performed. Although the patient is alive 7 months after surgical resection, several metastases (skin, brain and lung) have been observed.

PATHOLOGICAL FINDINGS

Grossly, the tumour consisted of homogeneous, whitish and firm tissue involving the anterior urethra, and invading the corpora cavernosa. Histological examination showed solid tumour nests with marginal clefts, composed of basaloid cells, sometimes enclosed by peripheral palisading (Figure 1a) and sometimes with squamous differentiation (Figure 1b), with frequent comedo-carcinoma-type necrosis (Figure 1d). Moreover, infrequent cystic spaces, containing a pale-staining substance (slightly positive alcian blue, pH 2.5) and PAS positive basement membrane-like material (Figure 1c), were observed. At the periphery of the tumour, perineural invasion was found. The cells exhibited a high nucleus-cytoplasm ratio, hyperchromatic oval to round nuclei, inconspicuous nucleoli and scant cytoplasm. The

mitotic index was elevated (10–12 mitotic figures per 10 HPF). The pathological diagnosis was mixed cloacogenic carcinoma.

Immunohistochemical studies using polyclonal antibodies against low-weight cytokeratin, epithelial membrane antigen (EMA), S-100 protein and chromogranin showed a positive immunoreaction for cytokeratin in the peripheral zone of the epithelial nests, and for epithelial membrane antigen in the central area of the nest. The reactions for both chromogranin and S-100 protein were negative.

Discussion

Cloacogenic carcinoma is a term introduced by Grinvalsky & Helwig⁵, referring to carcinomas originating at the anorectal junction. They are thought to arise from remnants of cloacogenic epithelium. Therefore, those tumours with a basaloid appearance, and located at the anterior urethra, are also thought to have a similar origin.

Five histological pictures have been observed in cloacogenic tumours: keratinizing, non-keratinizing,

Figure 1. Histological patterns observed: a basaloid; b keratinizing; c pseudo-adenoid cystic and d comedo-carcinoma-like. H & E. a–c $\times 250$, d $\times 160$.

basaloid, with mucous-cysts, and pseudo-adenoid cystic, all of which were present in our case. Although the presence of basaloid cells has been related to a better prognosis in the cloacogenic carcinoma of the anal canal, this has not been confirmed in the urethral neoplasm. Bolduan *et al.*⁶ pointed out that the prognosis and treatment of urethral carcinoma depend more on the location and stage than on the microscopic type or grade: tumours from the proximal penis have a worse prognosis than distal lesions. In our case, the presence of systemic disease may be related to the extensive invasion of the corpora cavernosa and the perineural lymphatic invasion.

Nearly half of the cases of male urethral carcinoma have a history of venereal disease, especially gonorrhoea, as in our case, although in the previously reported

cases of cloacogenic carcinoma^{3,4} this relationship was not mentioned.

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BRIEF REPORT

Overwhelming septicæmia due to *Streptococcus pneumoniae*: unexpected autopsy findings

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Case report

A 63-year-old woman was referred to the emergency room for clouding of consciousness, pyrexia (39.5°C) and disseminated purpura. Neurological examination disclosed evidence of meningitis but cerebral computed tomography was normal on admission. Cerebrospinal fluid (CSF) showed neutrophilia and numerous gram-positive diplococci. CSF and blood cultures were subsequently positive for *Streptococcus pneumoniae*. Despite appropriate antibiotic treatment, the neurological status rapidly worsened and the patient became comatose. Nuclear magnetic resonance imaging showed intra-

cerebral abscesses. The spleen was not demonstrated on abdominal echotomography. The patient died 48 h after admission of septic and haemorrhagic shock.

PATHOLOGICAL FINDINGS

At autopsy the liver (1410 g) showed a coarsely irregular surface but the cut section was normal. The spleen was normally shaped but weighed only 10 g. The splenic parenchyma appeared fibrotic, pearl grey and very hard. An X-ray film showed fine irregular and coalescent metallic densities distributed throughout the atrophic spleen (Figure 1a). The splenic vessels were patent. The brain (1320 g) showed meningitis complicated by two large intracerebral haematomas and tonsillar cerebellar herniation.

Multiple microabscesses were found in the heart, lungs and kidneys. Purulent meningitis was confirmed. All these lesions were considered to be part of the

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