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BRIEF REPORT

Lymphoepithelioma-like carcinoma of the urinary bladder: A case report

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KEYWORDS
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Abstract We report a case of lymphoepithelioma-like carcinoma of the urinary bladder in an elderly female patient. A 97-year old woman presented with hematuria, and an ultrasonographic urinary study showed a localized tumor in the trigone region of the urinary bladder. A transurethral resection revealed a mixed tumor formed by high-grade transitional carcinoma and lymphoepithelioma-like carcinoma that had infiltrated into the muscular propria. We describe the clinicopathological, morphological and immunohistochemical features of this tumor and briefly discuss its differential diagnosis and biological behavior.

PALABRAS CLAVE
Diagnóstico;
Inmunohistoquímica;
Carcinoma similar a un linfoepitelioma;
Carcinoma de células transicionales;
Vejiga urinaria

Carcinoma linfoepitelioma-like de vejiga urinaria: descripción de un caso

Resumen Describimos el caso de un carcinoma linfoepitelioma-like de vejiga urinaria en una paciente añosa. Se trata de una mujer de 97 años que presentó hematuria. El estudio ecográfico urinario demostró un tumor localizado en la región del trígono de la vejiga urinaria. La resección transuretral reveló un tumor mixto formado por un carcinoma transicional de alto grado y carcinoma *linfoepitelioma-like* que infiltró la capa muscular propia. Describimos las imágenes clinicopatológicas, morfológicas e inmunohistoquímicas de este tumor y discutimos brevemente su diagnóstico diferencial y el comportamiento biológico.

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Lymphoepithelioma is a descriptive term used to designate an undifferentiated carcinoma originally identified in the nasopharynx region and characterized by the presence of a markedly prominent lymphoid infiltrate.[1] In this location, a pathogenic role of the Epstein–Barr virus (EBV) has been described.[2,3] Tumors with similar morphologic appearances that arise outside of the nasopharynx are designated lymphoepithelioma-like carcinoma (LELC). The most frequent site of tumor appearance in the urinary tract is the urinary bladder. In 1991, Zukerberg et al. reported the first description of five cases of LELC.[4] This variant of bladder carcinoma is rare with a reported incidence ranging from 0.4 to 1.3%.[5] The prognosis of the pure form is better than that of conventional invasive urothelial carcinomas.

Case report

A 97-year old female was admitted at Hospital de Denia presenting hematuria. A tumor measuring 6 × 5 cm was diagnosed cystoscopically in the anterior and posterior walls of the bladder. Computerized tomography of the abdomen and pelvis and chest X-ray did not reveal tumor extension. Transurethral resection (TUR) was performed. Due to the advanced age of the patient, she refused to receive additional systemic treatment.

Material and methods

Histologic specimens were formalin-fixed, paraffin embedded, and stained with hematoxylin-eosin technique. Immunohistochemical studies were performed using a panel of appropriate antibodies, which included cytoqueratin AE1/AE3, CD3, CD20 and CD79a (All from Dako; prediluted).

Results

Histologic and immunohistochemical findings

TUR consisted of many fragments measuring 6 cm in length. Microscopically, the tumor was formed by sheets of large pleomorphic cells with syncytial borders and with large and round nuclei containing prominent macronucleoli (Fig. 1A–C). The tumor cells were positioned in a background containing an abundant inflammatory infiltrate formed primarily by lymphocytes and plasma cells (Fig. 1C). Some areas showed typical high-grade papillary transitional carcinoma. There were not vascular/lymphatic or perineural invasion. The immunohistochemical study revealed strong positivity for cytokeratin (AE1/AE3). The inflammatory infiltrate stained mainly with CD3 (Fig. 1D), whereas the CD20 and CD79 stains were negative. The tumor cells infiltrated diffusely into smooth muscle of muscularis propria (T2).

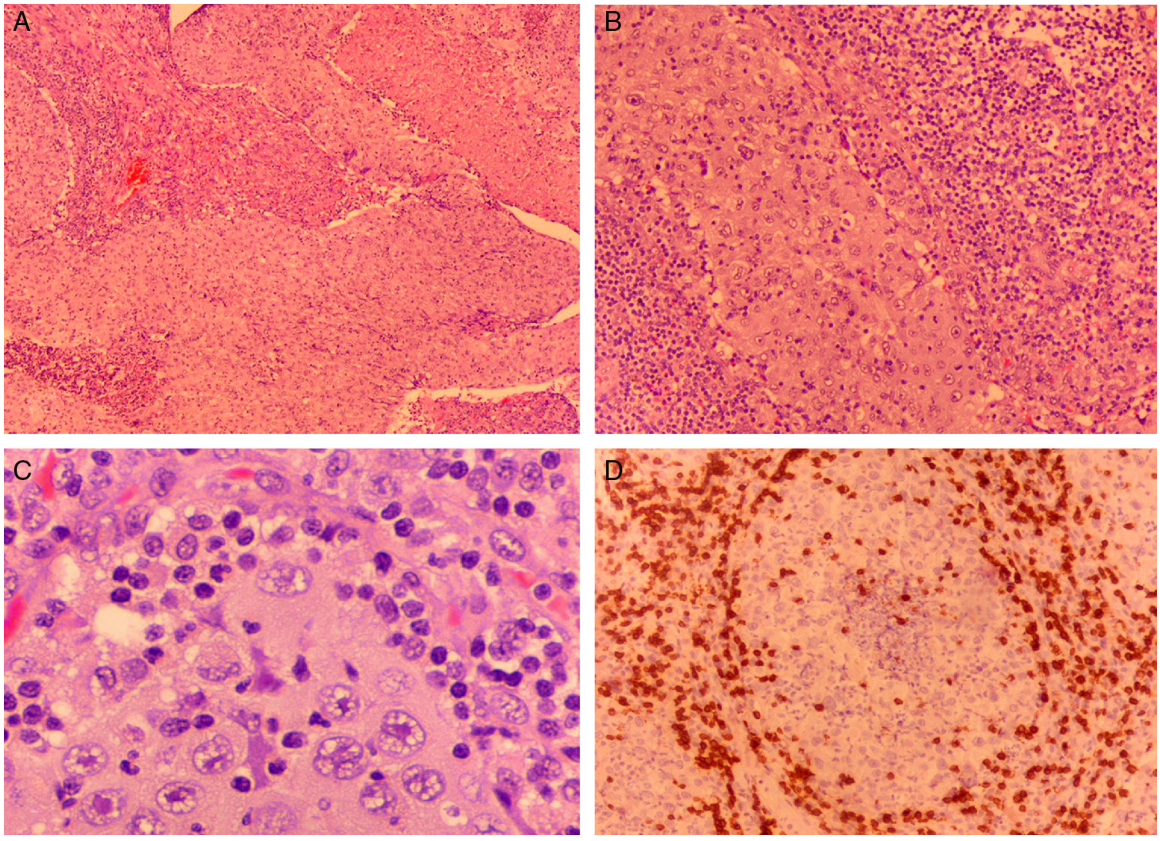

Figure 1 (A, B) The tumor showed solid sheets of tumor cells infiltrating diffusely into smooth muscle. (A) H&E 40×. (B) H&E 100×. (C) The tumor cells show vesicular nuclei with prominent nucleoli. The stroma shows heavy lymphocytic infiltrate. H&E 400×. (D) The inflammatory infiltrate is formed by T lymphocytes. CD3 stain 100×.

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