Human Pathology (2011) 42, 1343–1347

ELSEVIER

Human PATHOLOGY

www.elsevier.com/locate/humpath

Case study

Mucinous cystadenocarcinoma of the testis: a case report

Alina Cornelia Iuga MD[a,*], Jason Mull MD[b], Rashmi Batra MD[a], William Miller MD[a]

[a]St Luke's Roosevelt Hospital Center, New York, NY 10025, USA
[b]University of Texas Southwestern Medical Center, Dallas, TX 75390, USA

Received 26 April 2010; revised 22 November 2010; accepted 24 November 2010

Keywords:
Mucinous;
Cystadenocarcinoma;
Testis;
Intratesticular;
Cyst;
Intestinal;
Ovarian surface epithelial tumor;
Testicular adenocarcinoma

Summary We present a rare case of unilateral intratesticular cystadenocarcinoma with mucinous differentiation in a 71-year-old male patient. The orchiectomy specimen revealed a 3.5-cm well to moderately differentiated cystic neoplasm with elongated fine papillary structures lined by columnar epithelium with alternating goblet and ciliated cells completely replacing the testicular parenchyma. Immunohistochemical studies showed positivity for cytokeratin 20, carcinoembryonic antigen, and mucin 2, and negativity for cytokeratin 7, mucin 5AC, vimentin, thyroid transcription factor 1, Wilms' tumor 1, and cancer antigen 125. The current case shows a focal cyst-lining component with benign appearance. Imaging studies and colonoscopy showed no evidence of other suspicious lesions. This tumor resembles morphologically to an intestinal-type ovarian surface epithelial tumor.

1. Introduction

Ovarian-type surface epithelial carcinomas of the testis are rare among primary testicular malignancies. Most of the cases reported thus far have been serous, and an extensive literature search revealed only a handful of mucinous cases to date, most of which were noninvasive. We present the case of a 71-year-old man with intratesticular cystadenocarcinoma showing mucinous differentiation, capsular invasion, and transition from a cyst-lining component with benign appearance and discuss its gross, histologic, and immunohistochemical features.

2. Case report

A 71-year-old man was referred to the urologist for evaluation of progressive erectile dysfunction. His medical history was notable for atherosclerotic coronary disease requiring a stent placement. On examination, he was found to have an atrophic right testicle and an enlarged left testicle. He had no complaints at the time of presentation except erectile dysfunction. Upon further questioning, he reported noticing swelling of the left testicle dating back up to 2 years. Laboratory work including serum prostate-specific antigen, α-fetoprotein, and human chrionic gonadotropin levels were normal. His testosterone level was mildly decreased. An ultrasound revealed a 4.5 × 3.4 × 2.7-cm left testicle, a 2.3 × 2.1 × 1.2-cm right testicle, and bilateral varicoceles. The left testis had a 3.5 × 2.6 × 2.5-cm heterogeneous mass replacing most of the parenchyma, with only a crescent of normal-appearing testicular tissue at the superior aspect (Fig. 1).

Subsequently, the patient underwent a left radical orchiectomy without postoperative complications. The entire specimen was submitted for careful histologic examination. Pathology revealed a mucinous cystadenocarcinoma limited to testicular parenchyma, with negative margins. Light microscopy showed replacement of the entire testicular parenchyma by a well to moderately differentiated malignant

* Corresponding author. St Luke's Roosevelt Hospital Center, Pathology, New York, NY 10025, USA
E-mail address: alina.iuga@yahoo.com (A. C. Iuga).

0046-8177/$ – see front matter © 2011 Elsevier Inc. All rights reserved.
doi:10.1016/j.humpath.2010.11.021

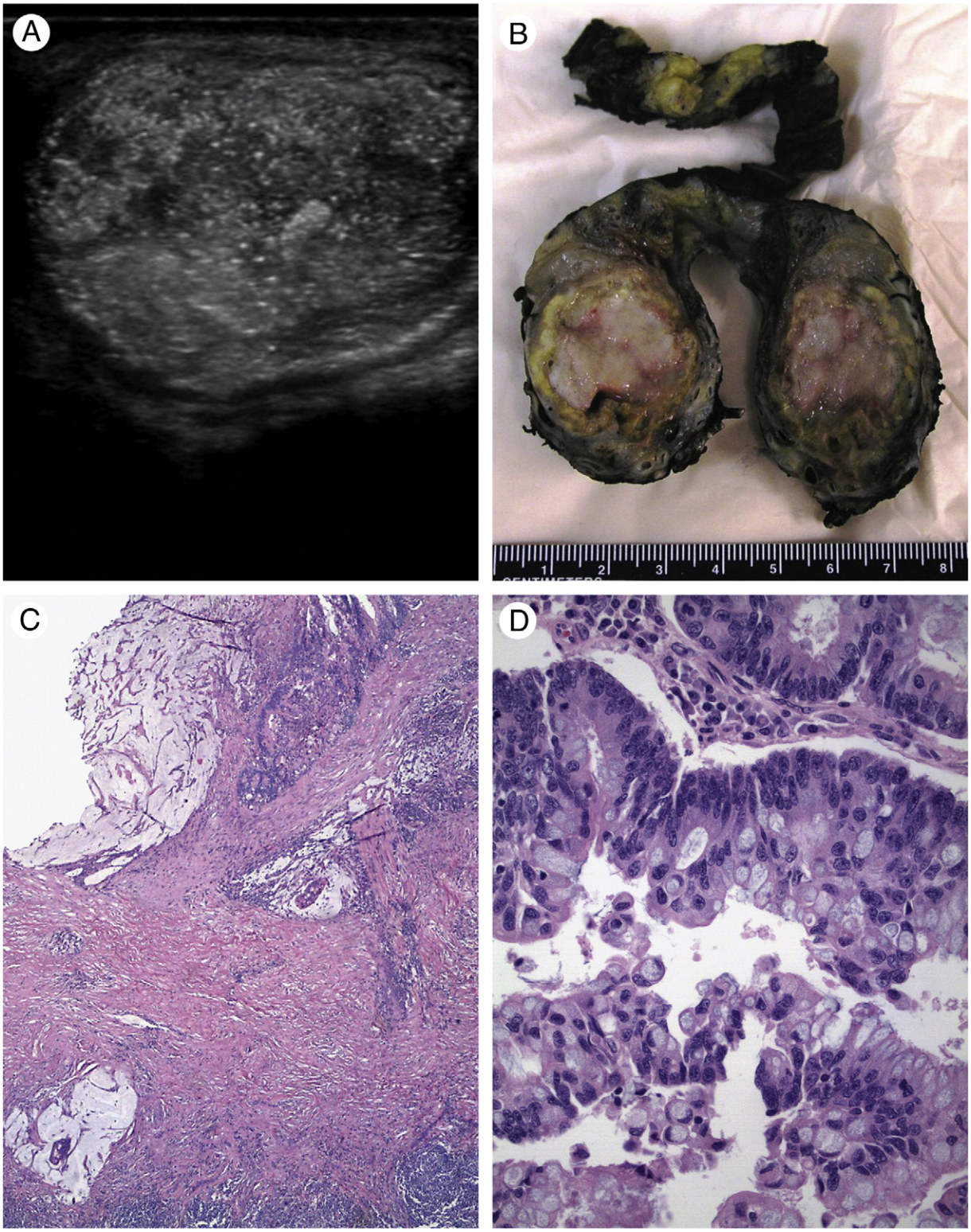

Fig. 1 A and B, Sonographic and gross image of the mass replacing the testicular parenchyma. C, Focal tumor capsule infiltration by malignant glands (hematoxylin and eosin, original magnification × 4). D, Histologic appearance of the adenocarcinoma with mucinous differentiation (hematoxylin and eosin, original magnification × 40).

cystic neoplasm with mucinous differentiation composed of back-to-back irregular glands, elongated fine complex papillary structures lined with alternating goblet cells and ciliated cells, and little intervening stroma (Fig. 1D). Only rare mitotic figures were found. Rare focal areas showed a single-layered cuboidal and low columnar epithelium, with