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(CASE REPORT)

On a case of prostatic Sarcomatoid carcinoma

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Abstract

Sarcomatoid carcinoma of the prostate is a very rare variant of prostate cancer; it generally consists of malignant glandular elements and spindle cells, while the sarcomatoid component ranges from 5 to 99 percent. It can affect both young and old, with the onset of symptoms ranging from difficulty urinating to incomplete emptying.

In addition, this form of neoplasm tends to metastasize frequently to bones, lungs, and liver.

Keywords: Sarcomatoid carcinoma; Prostate; Metastases; Carcinosarcoma

1. Introduction

Sarcomatoid carcinoma of the prostate is a very rare and aggressive tumor, occurring in less than 0.1% of cases of primary prostate cancer. These forms of neoplasm are defined as biphasic tumor because they are composed of both epithelial and sarcomatoid elements [1,2] and therefore referred to as carcinosarcomas (CS) and sarcomatoid carcinomas (SC), respectively [3]; the World Health Organization classification of urinary tract cancers uses the term sarcomatoid carcinoma for both forms (CS and SC) [4].

It is a tumor that can affect both young and old, causing the onset of several symptoms, including bladder obstruction, difficulty urinating, and the need to urinate frequently during the night, but it can also lead to incomplete emptying or poor urine flow [5].

Here we report the case of an 85-year-old man with sarcomatoid carcinoma of the prostate.

2. Case report

An 85-year-old man underwent bladder prostatic adenomectomy (APTV) for suspected prostatic adenoma.

The pathologic anatomy laboratory received the surgical specimen represented by multiple prostatic nodes weighing a total of 28, the largest of which was 3.5x3x1.5 cm, with a smooth outer outlines and grayish on cutting surface, with a nodular appearance and a hard-ligneous consistency.

Hematoxylin and eosin slides taken from formalin-fixed and paraffin-embedded specimens were stained to observe a very cellular neoplasm, with anaplastic, fusate and epithelioid morphology, necrotic areas and numerous atypical mitosis, without glandular structures (figure 1). Subsequently, immunohistochemistry was used to confirm the hypothesized diagnosis of sarcomatoid neoplasm; specifically, the neoplastic cells were positive for PanK and Vimentin, with negativity for CK34betaE12, p63, PSA, GATA3, synaptophysin and chromogranin A, confirming the diagnosis of primitive prostatic sarcomatoid carcinoma (figures 2-3).

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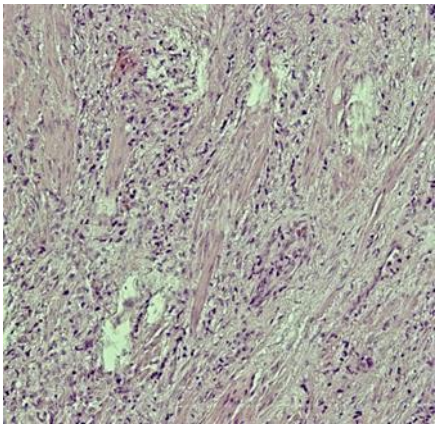


Figure 1 Hematoxylin and eosin images of the sarcomatoid carcinoma of the prostate

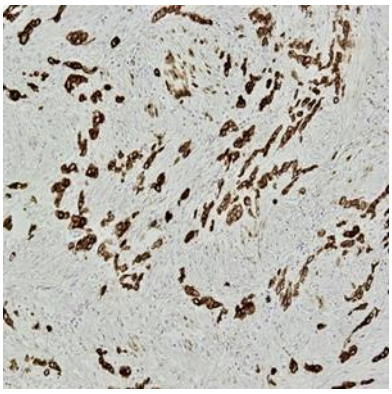
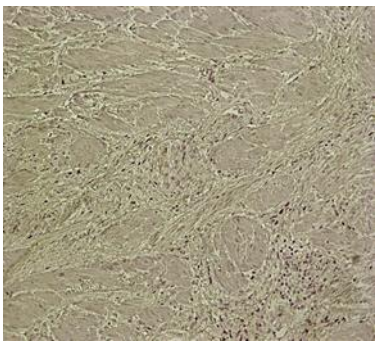


Figure 2 This section was stained with PanK and was found to be positive



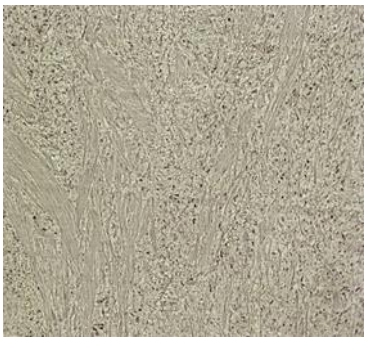


Figure 3 These sections were stained with immunohistochemical techniques CK34betaE12, p63, PSA, GATA3, synaptophysin, chromogranin A and they all turned out to be negative

3. Discussion

Sarcomatoid carcinoma is a rare neoplastic entity of the prostate [1]. Microscopically, the carcinomatous and sarcomatous components are intermingled and focally fused [6]; sometimes it's possible to detect the carcinomatous elements forming epithelial acinar structures.

These tumor causes urinary obstructive symptoms, in addition to symptoms of frequency and urgency, including bladder outlet obstruction that requires repeated TUR in order to control local symptoms [5].

This neoplastic variant can frequently spread from the prostate by going on to metastasize to the liver, lungs, and bones; for this reason, patients are often diagnosed with the disease at an advanced stage.

To date, operable sarcomatoid carcinomas are treated with surgery often followed by radiotherapy and adjuvant chemotherapy, especially in cases where there are positive margins or lymph nodes [3].

Unfortunately, however, patients have a 20% risk of death within one year after diagnosis.

4. Conclusion

Primitive prostatic sarcomatoid carcinoma represents a very rare malignant entity. It presents diagnostic and therapeutic difficulties for its aspecific symptoms; sarcomatoid carcinoma is characterized by a poor prognosis at time of diagnosis for its aggressive biological behaviour due to rapid growth and frequent secondarisms. In general, surgical resection, radiotherapy and adjuvant chemotherapy are used, along with palliative care in patients who are at an advanced stage.

Compliance with ethical standards

Informed consent was obtained from all individual participants included in the study.

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