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Primary mucinous adenocarcinoma of the prostate: a rare case report

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Introduction

Mucinous adenocarcinoma (MC) of the pros-tate gland is rare and one of the least common morphologic variants of prostatic carcinoma. MC was defined as at least 25% of the tumor consisting of pools of extracellular mucin with an extraprostatic tumor site ruled out . Mucinous adenocarcinoma of the prostate usually has no obvious symptoms, its usual clinical symptom are frequency, dysuria, difficulty in voding which are similar to benign prostate hypertension, the diagnosis of mucinous adenocarcinoma is made only when extraluminal pools of mucin involve at least 25% of the tumor volume at prostatectomy, the different with the prostate acinar cell carcinoma is that MC is more likely to occur in skeletal and visceral metastases.

Mucinous adenocarcinoma is currently considered an aggressive disease, and at the International Society of Urological Pathology Consensus Conference on Gleason Grading of Prostatic Carcinoma in 2005, it was suggested that these tumors should be classi-fied as Gleason score 8 (4+4) . We report one case of a primary mucinous adenocarcino-ma of the prostate.

Case Report

A 65-year-old man with no previous history of malignancy presented to our hospital with difficult defecation and anus distention. On digital rectal exam , a firm mass was felt on wall of the rectum. There were no palpable lymph nodes. No tumor found in colonoscopy exams. CT scan revealed a mass replacing the prostate gland, which appeared cystic mass with complete capsule. The patient's serum prostate-specifiic anti-gen (PSA) level was 2.19 ng/mL, and all the other serum tumor markers examined (carbohy-drate antigen 19-9 [CA19-9], carcino-embryon-ic antigen [CEA], alpha-fetoprotein [AFP], lactate dehydrogenase [LDH] and prostate- specifiic acid phosphatase values) were within normal ranges. The patient received radical prostatectomy. Histopathology of the operation specimens showed foci that consisted of pools of mucin (Figure 1,2). Immunohistochemical study reveal-ed diffuse staining with CK20, CDX2, CK7.

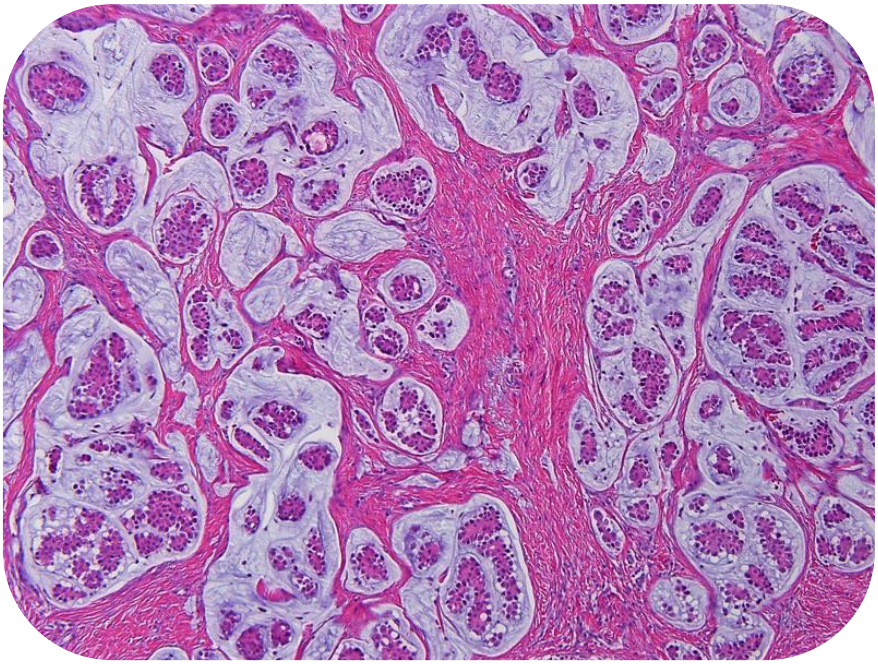

Figure 1 Mucinous adenocarcinoma of the prostate showing malignant acini in pools of mucin (x 20)

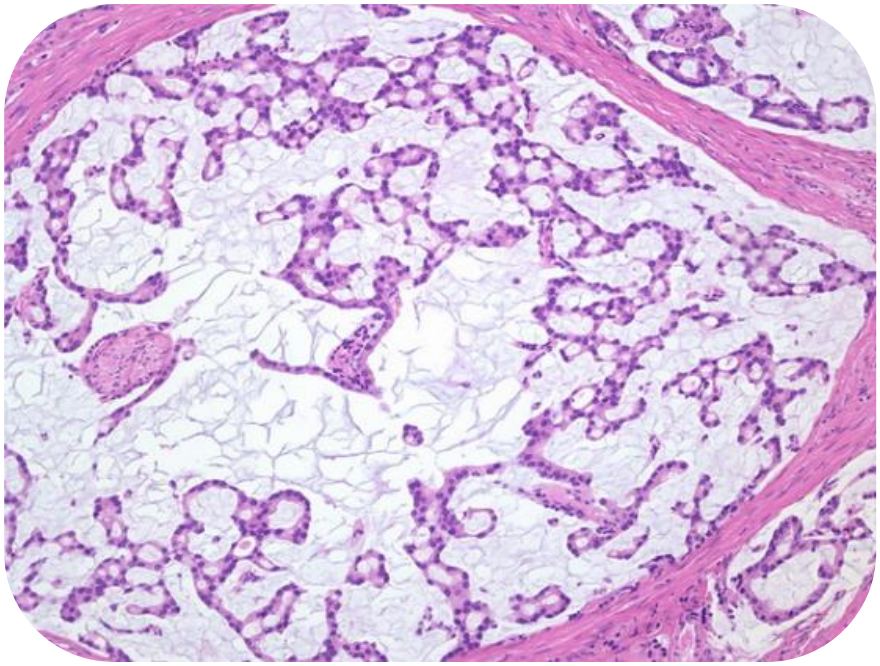

Figure 2 Mucinous adenocarcinoma of the prostate showing malignant acini in pools of mucin (x 20)

Discussion

Mucinous adenocarcinoma of the prostate was first described by McNeal in 1991 and were observed in 13 out of 33 mucin-producing prostatic adenocarcinomas. Based on the 2005 International Society of Urologic Pathology (ISUP) consensus conference defined by the presence of pools of extraluminal mucin involving at least 25% of the tumor volume at prostatectomy. Mucinous adenocarcinoma is extremely rare with an incidence of approximately 0.2%. This carcinoma is one of the rare prostatic carcinoma variants, with an incidence of 0.3% of all prostatic carcinomas. If mucinous lakes are detected in needle biopsy, the recommended diagnosis is "adenocarcinoma with mucinous features". If <25% of the tumor in radical prostatectomy sections is mucinous, one can make diagnosis of adenocarcinoma with focal mucin.

With strict diagnostic criteria, it is suggested to have similar features and behavior with conventional PCa . PSA and CK8/18 antibodies demonstrate the mucinous cell are derived from prostate gland, other than metastasizing.

The treatment of mucinous adenocarcinoma of the prostate is still controversial, and it is mainly divided into surgery and endocrine therapy. There were few reports of radiotherapy. It is generally accepted that surgical treatment is still the most effective method for the treatment of early mucinous adenocarcinoma of the prostate, endocrine therapy remains controversial in the treatment of mucinous adenocarcinoma of the prostate. Mucinous adenocarcinoma is not sensitive to radiotherapy. The prognosis of mucinous adenocarcinoma of the prostate is better than that of conventional prostatic adenocarcinoma. Saito et al. found that the prognosis of mucinous adenocarcinoma was similar to that of well differentiated adenocarcinoma, with a 3-year survival rate of up to 50%. The 5-year survival rate was 25%. This case we use the Endocrine therapy, currently 3 years of follow-up, patients are generally in good condition, except for frequent micturition, urine wait. CT, ECT have found no evidence of bone metastasis and distant metastasis, and the therapeutic effect was better than that reported in the literature. And the patient is still in follow-up.

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