

# Prostate Cancer in Young Adults: About Two Cases at the Urology Department of the University Teaching Hospital of Point G

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## Abstract

*We report two cases of prostate cancer in young adult 35 and 45 years old. Patients reported voiding disorders. On digital rectal examination, the prostate was hard. PSA levels were high. At the time of diagnosis, in two cases, there was an invasion of neighboring organs. Histology of the prostate biopsy confirmed adenocarcinoma of the prostate. We performed hormone therapy in two patients. The outcome was unfavorable in the first patient with death 6 months after the start of treatment. In the second patient, the clinical and biological evolution were good at 6 months and 1 year.*

**Keywords:** Prostate cancer, young adults, hormone therapy

## INTRODUCTION

Prostate cancer is a disease of older men. It is rare before the age of 50. In young adults, this tumor is most often very aggressive. The diagnosis is generally late, because it is discovered at an advanced clinical stage with a poorly differentiated histological type. Treatment is most often palliative and the prognosis is poor [1]. We report here two cases of adenocarcinoma of the prostate in young adults, 35 and 45 years old, respectively, in the urology department of the Point G university hospital.

## Observation 1

M.D, 35 years old man, referred by the nephrology department for bilateral ureterohydronephrosis on prostatic hypertrophy. He had a history of urinary schistosomiasis in childhood. There was no known family history of prostate cancer. He had a notion of dysuria, disabling pollakiuria and intermittent total hematuria evolving for 7 months, prompting several

consultations and unsuccessful treatment with praziquantel.

On digital rectal examination, the prostate was increased in volume estimated at 70g, with an irregular contour, hard and painless. Kidney-bladder and prostate ultrasound revealed heterogeneous nodular prostatic hypertrophy with an estimated weight of 60g. The post voiding residue was estimated at 172 ml. Uro-CT revealed invasion of the seminal vesicles and bladder with bilateral stage III ureterohydronephrosis.

The PSA was 6.27ng/ml. The ECBU was negative. The serum creatinine was 167 umol/l and the hemoglobin level was 11.4g/dl. The result of the biopsy prostate confirmed an adenocarcinoma of the prostate with a Gleason score of 7 (4+3). After failure of the trans urethral catheterization attempt, suprapubic catheterization was performed. We classified the tumor as T4N0M0. We opted for hormonal therapy, because of the young age the patient, the locally advanced stage

of the tumor. The patient refused surgical castration, patient received anti-androgen based on cyproterone acetate (50mg): 2 tablets morning and evening. The clinical course was favorable two months after initiation of this treatment and the lost sight of. The patient died 6 months later.

### **Observation 2**

M. AD, 45 years old man, who was referred to us a clinic in Bamako, for heterogeneous prostatic hypertrophy on ultrasound. He had a history of urinary schistosomiasis in this childhood who was treated medically. He had no known family history of prostate cancer. On interrogation, he had a long history of dysuria, pollakiuria, and urination burns. The physical examination found fair general condition and chronic bladder retention prompting the placement of a suprapubic tube after failure of trans urethral catheterization. On digital rectal examination, the prostate was very enlarged, irregular and hard.

Kidney-bladder and prostate ultrasound revealed heterogeneous prostatic hypertrophy with an estimated weight of 123g of suspicious appearance, moderate bilateral ureterohydronephrosis. The PSA level was 241ng/ml. The ECBU was negative. The result of the prostate biopsy confirmed an adenocarcinoma of the prostate with a Gleason score of 8 (4+4). Thoraco-abdominal-pelvic computed tomography revealed invasion of the seminal vesicles, bladder and bilateral stage II ureterohydronephrosis. The tumor was classified as T4N0M0. We performed surgical castration (bilateral pulpectomy) after patient consent. The clinical and biological course was good at 6 months and 1 year.

### **DISCUSSION**

Prostate cancer is a rare tumor before the age of 50, with a frequency that does not exceed 1% [1]. The average age at diagnosis is currently 70 years [2]. Our observations focused on patients aged 35 and 45 years old, respectively. The family history, being a risk factor for prostate cancer; recommending individual screening from the age of 45, we have not found it in any of the cases observed. Damage at young age is not very symptomatic, and most often manifests itself in the late stage [3]. The diagnosis can be made

in the presence of functional urinary signs, which are most often obstructive, as is the case in our two observations. But also, in front of signs of bone or lymph node metastases.

Imaging exams are unremarkable compared to other prostate tumors [4]. The PSA dosage is usually normal even in the presence of metastases because of the little differentiation of the tumor [3-6]. In our case, for observation 1 had a PSA of 6.27ng/ml, despite the locally advanced stage of the tumor. The same observation was made in a similar study in Tunisia, finding a PSA of 0.94ng/ml for an adenocarcinoma of the prostate with Gleason 10 (5+5) [4]. Very few cases are described in the literature. However, for the rare cases reported, the therapeutic option is most often palliative (hormone therapy, radiotherapy, chemotherapy), because of the advanced stage of the tumor at the time of diagnosis and the aggressiveness, given the young age of the patients. The modalities of these therapeutic methods in this entity given the rarity of cases have not yet been well codified [4].

However, radical prostatectomy has been reported for an adenocarcinoma of the prostate located in a young adult of 29 years [3]. Radical curative treatment can therefore be offered when indicated. The elements of good prognosis which can influence survival are asymptomatic character a time of diagnosis, good tumor differentiation on histology and response to hormonal treatment [3, 6, 8]. In our two patients, despite the absence of secondary localizations, there was an obstructive urinary symptomatology (bilateral obstructive ureterohydronephrosis) and the histological examination had found a poorly differentiated tumor with a Gleason 7 (4+3) for the first and a Gleason 8 (4+4) for the second case.

The mean survival in the literature varies from 6 months [3, 5] to 12 months [1, 6]. Two months after the start of treatment, we lost sight of the patient in observation 1, thus limiting our follow-up. We learned of his death 6 months later. The patient in observation 2 had a good outcome after bilateral pulpectomy up to 1 year follow-up. According to the study by Bleyer and al. [9], the overall 5-years relative survival rate in the United States for men diagnosed between the ages of 40 and 80 was between 95% and 100%, it was 80% in those aged 25 to 34. Hussein and al. [10], reports

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that, ethnic, familial and genetic factors play a role in the early onset of prostate cancer, but the biology, especially of low grade prostate cancers detected at a young age, is not well understood.

The study of Salinas AC and al. [11], shows that among men with high-grade and advanced prostate cancer, those diagnosed at a young age have a higher cause-specific mortality. He reports that this finding suggests that there are important biological differences between early-onset prostate cancer and late-onset cancer.

### CONCLUSION

adenocarcinoma of the prostate in young adult is a rare and very aggressive tumor, diagnosed late with a histological type most often poorly differentiated. The treatment is palliative, given the advanced stage of the tumor when it is discovered. The prognosis is pejorative with survival generally not exceeding 6 months.

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