

# REGRESSION OF A CHOROIDAL METASTASIS FROM PROSTATE ADENOCARCINOMA AFTER HORMONAL THERAPY

## REGRESIÓN DE UNA METÁSTASIS COROIDEA DE ADENOCARCINOMA DE PRÓSTATA CON TRATAMIENTO HORMONAL

BARBÓN JJ<sup>1</sup>, GONZÁLEZ-TUERO J<sup>1</sup>, GAY LL<sup>1</sup>, PÉREZ-GARCÍA FJ<sup>2</sup>, SAMPEDRO A<sup>1</sup>

### ABSTRACT

**Case report:** We report a case of a patient diagnosed with prostatic adenocarcinoma with multiple bone metastases and a choroidal metastasis in his left eye. Hormonal therapy with an anti-androgen and a LH-RH agonist was followed by regression of the choroidal mass over a period of 2 months. No metastatic recurrence has been demonstrated after a follow-up period of 14 months.

**Discussion:** Complete resolution of choroidal metastases of prostatic adenocarcinoma with hormonal therapy is exceptional, but the effect of this treatment on such metastases should be observed before recommending radiation therapy (*Arch Soc Esp Oftalmol* 2007; 82: 715-718).

**Key words:** Prostate adenocarcinoma, choroidal neoplasms, uveal neoplasms, metastasis, hormonal antineoplastic agents.

### RESUMEN

**Caso clínico:** Paciente diagnosticado de adenocarcinoma de próstata con múltiples metástasis óseas, que también presentaba una gran metástasis coroidea en su ojo izquierdo. El tratamiento hormonal, mediante la asociación de un antiandrógeno y un análogo de LH-RH, obtuvo en 2 meses una rápida regresión de la metástasis, regresión que se mantiene a los 14 meses de seguimiento.

**Discusión:** La desaparición de las metástasis coroides en el adenocarcinoma de próstata con la terapia hormonal resulta excepcional aunque su efecto podría probarse antes de pautar la radioterapia como tratamiento electivo.

**Palabras clave:** Carcinoma de próstata, metástasis coroidea, metástasis uveal, metástasis, terapia hormonal antineoplásica.

### INTRODUCTION

Prostate adenocarcinoma is one of the most frequent cancers in males in our country, and up to

30% of the cases show metastasis at diagnosis (1). Metastasis usually spreads towards bones or lymph glands, while uveal metastasis is very rare, representing only 2% of all cases (2,3).

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San Agustín de Avilés Hospital. Asturias. Spain.

<sup>1</sup> Graduate in Medicine.

<sup>2</sup> Ph.D. in Medicine.

Correspondence:

Juan Jesús Barbón García

C/. Juan Ochoa, 1, 7-D

33401 Avilés (Asturias)

Spain

E-mail: jjbarbon@telecable.es

## CASE REPORT

A 74-year old male admitted due to mild hemiparesis on the left side with loss of strength, sensibility and hyperreflexia. The cranial Computerized Tomography (CT) detected a hyperdense lesion in the right parietal area with multiple blastic lesions in ribs and spine in thoracic CT, all compatible with metastasis. With the cranial Magnetic Nuclear Resonance an intraocular mass was also detected in the left eye (LE), hyperintense in T1 and with contrast uptake and hypointense in T2.

The presence of prostatic syndrome with petrous prostate under rectal exam guided the diagnosis of primary tumor, confirming an adenocarcinoma following prostatic biopsy with values of 2 + 2 on the Gleason scale. The PSA (prostate specific antigen) was 483 ng/ml.

The ophthalmological examination gave a visual acuity (VA) with optical correction of 0.8 in right eye (RE) and 0.6 in LE. The RE fundus was normal, while in the LE, although the patient was asymptomatic, there was a large intraocular grayish mass, with slight associated retina detachment, occupying the temporal sector and reaching the macular area (fig. 1). In the ultrasound scan, the mass appeared with medium echogenicity and considerable measurements of 17 mm in base by 8 mm in height (fig. 2).



Fig. 1: Large intraocular metastasis due to prostate adenocarcinoma.

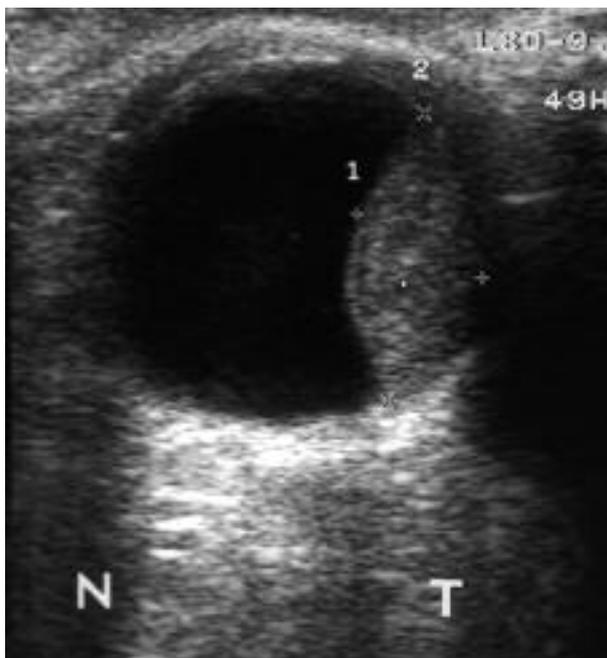


Fig. 2: (Ultrasound scan): Temporal tumor with uniform reflectivity.

Patient began treatment for advanced prostate carcinoma by maximum androgenic blocking, associating an antiandrogen (bicalutamide) to an LH-RH agonist. Although there were no changes in VA, choroidal metastasis decreased in size until its clinical disappearance 2 months after onset of treatment. The eye fundus remained dotted and hyperpigmented in the area of the lesion together with a macular pigmentary epithelium alteration (fig. 3). Evolution of PSA values tended towards a decrease to 31.26 ng/ml at 4 months and 0.49 ng/ml at 7 months. Remission of ocular metastasis was maintained at the 14-month follow-up.

## DISCUSSION

Most prostate adenocarcinomas are hormone-dependent, so that hormonal therapy is the main first choice for patients with metastatic disease. In clinical practice, surgical castration (orchiectomy), medical castration with estrogens or LH-RH analogs is used, as well as antiandrogens. Maximum or total androgenic blockage, used frequently, associates an LH-RH agonist and an antiandrogen



Fig. 3: Disappearance of metastasis with residual dotting of hypo and hyperpigmentation.

aiming for simultaneous suppression of androgens of testicular and suprarenal production (1,2).

In prostate adenocarcinoma, Gleason's scale expresses the level of tumor aggressiveness, classifying the two most common cancer cell patterns in digits from 1 to 5, noting the first most common cell pattern (for example, 2 + 3 = 5). Values of 4 or less correspond to clearly distinct cancers, while values of 7 or above indicate greater aggressiveness, therefore a worse prognosis (2).

PSA is an excellent prostatic cancer tumor marker and aside from its diagnostic usefulness, monitoring PSA during patient follow-up is of considerable value for prognosis. In advanced stages of the disease, PSA values below 10 ng/ml after 6 months of hormonal treatment, as in the case of this patient, are correlated to a higher survival rate (2).

Choroidal metastases due to prostate adenocarcinoma appear as amelanotic masses with medium-high reflectivity in ultrasound scans. These choroidal metastases are treated and respond well to

radiotherapy, with a regression of their thickness and disappearance of the subretinal fluid (4). On the other hand, the existence of choroidal metastasis is related to lower patient survival. If there is no primary tumor, a diagnosis can be made with a fine needle puncture-aspiration and these cells will show positive for PSA and prostatic acid phosphatase (4).

To date, only one patient with choroidal metastasis regression following hormonal therapy has been published, who had been treated with orchiectomy and estrogens from the pre-PSA period (5). The case described also included treatment of prostate adenocarcinoma with bone metastasis, of a smaller size and clearly distinguished, that reappeared after 2 months, leaving retinal pigmentary epithelium atrophy with recovery of visual function (5). Although we have found this is exceptional, there is a possibility of full regression of choroidal metastasis with hormonal therapy, in our case accompanied by a drop in PSA serum levels. It would be recommendable, in similar cases, to conduct a short follow-up (between 4 to 8 weeks) after establishing hormonal treatment, before considering radiotherapy as alternative treatment.

## REFERENCES

1. Auclerc G, Antoine EC, Caffinger F, Brunnet-Pommeyrol A, Agazia C, Khayat D. Management of advanced prostate cancer. *Oncologist* 2000; 5: 36-44.
2. Walsh PC, Retik AB, Vaigan ED, Wein AJ. *Campbell Urología. 8ª Edición, Madrid: Ed. Médica Panamericana; 2005; Tomo IV: 3285-3536.*
3. Shields CL, Shields JA, Gross NE, Schwartz GP, Lally SE. Survey of 520 eyes with uveal metastases. *Ophthalmology* 1997; 104: 1265-1276.
4. De Potter P, Shields CL, Shields JA, Tardio DJ. Uveal metastasis from prostate carcinoma. *Cancer* 1993; 71: 2791-2796.
5. Dieckert P, Berger BB. Prostatic carcinoma metastatic to choroid. *Br J Ophthalmol* 1982; 66: 234-239.