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Previous Month's Discussion and Answer

Complete Response to the Combination Therapy with Androgen Blockade and Somatostatin Analogue in a Patient with Advanced Prostate Cancer: Magnetic Resonance Imaging with 1H-Spectroscopy: Part 2

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1. Discussion

In previous studies [1,2], we showed that the combination therapy of androgen ablation and somatostatin analogue offered objective and symptomatic responses in patients with androgen ablation-refractory prostate cancer and elevated chromogranin A (CgA) expression (neuroendocrine [NE] activation). We now report data on a patient with metastatic prostate adenocarcinoma who showed an objective response in the expression of skeletal metastases and a normalisation of the ratio of choline plus creatine to citrate at magnetic resonance 1H-spectroscopic imaging (1H-MRSI) of the prostate, using a combination of complete androgen blockade (CAB) and lanreotide.

In some patients with prostate adenocarcinoma, NE cell activity can increase the aggressiveness and the risk of progression of the tumour [1,2]. As previously described [1], in this case the rationale for our combination therapy was to: (1) inhibit the protective antiapoptotic effect of the NE system on prostate adenocarcinoma cells (somatostatin analogue) and (2) sustain and improve the cytotoxic effect of CAB on prostate cells. The increased CgA expression associated with high prostate-specific antigen (PSA) levels at diagnosis, the significant reduction of CgA during therapy, and the extraordinary objective complete response obtained within a short interval all may suggest that a reduction of NE activity on prostatic cancer cells is a mechanism accounting for the encouraging results that were observed.

We underline that, for the first time in the literature, using the 1H-MRSI technique, we showed a normalisation of the ratio of choline plus creatine to citrate from >1 (pretreatment) to <0.5 (at treatment response), at the prostate cancer level. The 1H-MRSI technique, associating an imaging and a morphologic analysis, could represent a powerful tool to identify and quantify the objective response to cytotoxic therapies at the prostate cancer level [3,4]. Larger clinical analyses on the use of 1H-MRSI in this field are encouraged.

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Conflicts of interest

The authors have nothing to disclose.

EU-ACME question

Neuroendocrine differentiation could be considered one of the factors related to the progression of prostate adenocarcinoma in a hormone-refractory disease. How has it been proposed to manage this neuroendocrine hyperactivation in prostate cancer?

A. To continue complete androgen blockade (CAB).
B. To discontinue androgen-deprivation therapy and start chemotherapy.
C. To discontinue androgen-deprivation therapy and start somatostatin analogues.
D. To add a somatostatin analogue to androgen-deprivation therapies.

Correct answer: D

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