

# Haemolytic Uraemic Syndrome and Its Relation to Metastatic Prostate Adenocarcinoma: A Case Report

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**Received date:** July 15, 2016, **Accepted date:** August 11, 2016, **Published date:** June 21, 2016

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## Abstract

Haemolytic Uraemic Syndrome (HUS) has been rarely related to prostate cancer. The few cases reported in the literature show a better prognosis with the implementation of oncologic treatment. Its pathogenesis is unknown and has never been described as a consequence of treatment with bicalutamide. At the presented case this association couldn't be dismissed due to its temporal relationship, so surgical castration was carried out. It is important to recognize signs and symptoms of HUS on time because an early intervention is related to a better outcome.

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Prostate cancer is the second most frequent malignancy in men affecting more than one million patients in the USA and it is the third leading cause of death of cancer in developed countries. The diagnosis at a metastatic stage is unusual but it is commonly seen when local treatments fail to control the disease. T

castration, being preferred generally the first option using LHRH analogues and antiandrogens due to its aesthetic and psychological implications. However, if it is not possible to decrease testosterone levels to <50 ng/dl with the available drugs nowadays, or if bicalutamide can not be used, as it happened in our case, it is possible to use a surgical strategy undergoing a bilateral orchiectomy.

Since the recent publication of the clinical trial CHAARTED, the use of docetaxel in the first 3 months of ADT has demonstrated better results than the ADT alone in terms of overall survival (57.6 vs 44 months), progression free survival and biochemical response, above all among patients with high burden disease, not having achieved yet median survival in the subgroup of patients with low burden disease. These results happen to confirm the ones at the clinical trial STAMPEDE, presented at the last ASCO 2015 [4].

No relationship has been found described in the literature between bicalutamide and the development of HUS, which led us to think about the possibility of a paraneoplastic syndrome as the cause of the HUS in the above presented case, but because of the severity of the situation and the temporal association with the use of bicalutamide, none could be dismissed. Surgical castration was chosen because it gets a quickly drop of testosterone levels compared to pharmacological therapy. Until now almost 20 cases have been found reported in the literature that show an association of HUS and prostate cancer; the majority of them describing metastatic disease with high levels of PSA, having a better prognosis and response to haemodialysis, plasmapheresis and oncologic treatment. It has also been described the association of HUS to other malignancies, more frequently adenocarcinomas, although in oncology the most commonly presentation is secondary to chemotherapy (especially mitomycin and gemcitabine) [5,6].

Eculizumab is a humanized monoclonal antibody that blocks the complement cascade binding with high affinity to the human C5 complement protein. It has shown its efficacy in the treatment of

atypical HUS in two phase 2 studies, demonstrating improvement of renal function and haematological parameters, being possible the discontinuation of plasmapheresis in the majority of patients treated with this drug [7]. However, its high price and potential severe secondary effects restricts its use.

Our case reflects similar characteristics to the ones described in previously reported cases in the literature: metastatic prostate cancer with high levels of PSA which presents a good evolution of HUS after establishment of pertinent therapy. Nevertheless, it is important to recognise symptoms on time because an early intervention is related to better prognosis [8].

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