Phase II study of the Prednisone to Dexamethasone switch in mCRPC patients on Abiraterone plus Prednisone (SWITCH study).

Elena Castro[1], N.Romero-Laorden[1], R.Lozano[1,2], A.Jayaram[3], F.López-Campos[1], M.I.Saez[2], A.Montesa[2], A.Gutierrez-Pecharroman[1], G.Attard[3], D.Olmos[1,2]

1. Spanish National Cancer Research Centre (CNIO), Madrid, Spain
2. Institute of Biomedical Research in Malaga (IBIMA), Málaga, Spain
3. The Institute of Cancer Research, London, United Kingdom

Background: Despite most mCRPC patients may benefit from abiraterone acetate plus prednisone 5mg bid (AA+P) resistance will eventually occur, partly related to prednisone. Switching the concomitant steroid may reverse this resistance.

Objective: To evaluate the antitumour activity of abiraterone acetate plus dexamethasone 0.5mg daily (AA+D) in mCRPC patients progressing to AA+P.

Design, setting and participants: SWITCH was a multicentre, single arm, open label, single-stage, phase II study. Clinically stable mCRPC patients who had PSA and/or limited radiographic progression after at least 12-weeks on AA+P, switched to AA+D. Archival tissue and plasma samples were collected.

Outcome measurements and statistical analysis: The primary endpoint was PSA30 ≥6-weeks response rate. Secondary endpoints included: PSA50 ≥12-weeks response rate, biochemical and radiological progression, overall survival, safety profile evaluation, subsequent treatment lines activity, and exploration of biomarkers of response (*AR* copy-number, *TMPRSS2-ERG* status and PTEN expression).

Results and limitations: Twenty-six patients were enrolled. PSA30 ≥6-weeks and PSA50 ≥12-weeks were 46.2% and 34.6%, respectively. Median time to biochemical and radiological progression were 5.3 and 11.8 months, respectively. Two radiological responses were observed. Median overall survival was 20.9 months. Patients with *AR* amplification detected in plasma ctDNA did not responded to switch. No significant toxicities were observed and PSA50 response rate to subsequent taxane was 50%. Our study is limited by the lack of comparator-arms that demonstrated the long-term benefits of AA+D switch over maintaining AA+P or single-agent dexamethasone.

Conclusions: In selected clinical stable mCRPC patients with limited disease progression, the prednisone to dexamethasone switch concomitant to Abiraterone Acetate could be an active option in selected patients.

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Conflict of interest
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