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Introduction & Objectives: Recent studies have shown that mCRPC patients treated with AA who develop asymptomatic biochemical progression (BP) can benefit from the switch from Prednisone to Dexamethasone since it seems to increase progression-free survival (PFS). Our objective is to determine if in mCRPC patients with asymptomatic BP treated in 3 Spanish centers this switch induces new PSA responses and prolongs PFS.

Materials & Methods: Retrospective review of a prospective cohort of 189 mCRPC patients treated with AA + Prednisone 10mg in first line in three Spanish hospitals between July 2015 and February 2019. 44 of them underwent a switch to Dexamethasone 0.5 mg / day after asymptomatic BP. Treatment with Dexamethasone was maintained until radiological or clinical progression. The definitions of progression followed the criteria of PCWG3 (Prostate Cancer Clinical Trials Working Group 3). The median follow-up was 14.3 (ICR 7,1 – 25,3) months, in which clinical and biochemical responses were evaluated monthly and radiological responses each 3-6 months. We evaluated PFS and PSA response, defined according to PCWG3 as PSA reduction >50%.

Results: Mean hormone-sensitivity (HS) time was 64.9 (SD 50,8) months. Biochemical PFS (bPFS) with AA + Prednisone was 10.7 (SD 6,5) months, with a >50% PSA reduction of 68.2% and a median PSA nadir of 9,14 (ICR 2,35 - 20,30) ng/mL. At Switch, mean age was 69.2 years (SD 7,1); the majority had ECOG 0 and 1 (84% and 4% respectively); and median PSA was 29,46 (ICR 9,27, 92,07) ng/mL. After switching, 63.4% showed stability or decrease in PSA and 20.5% had a PSA decrease > 50%. Mean bPFS was 4.3 (minimum 0 y maximum 18) months and mean radiological or clinical PFS (rcPFS) 8.3 months (SD 6,6). Mean bPFS and rcPFS with AA + Corticosteroids were 14,9 (SD 7,3) y 16,9 (SD 10,5) months respectively. In the univariate analysis, we found a correlation between HS time and bPFS (Spearman coefficient 0.426) ($p = 0.024$) and the decrease percentage of PSA from baseline after switching (Spearman coefficients -0.505), ($p = 0.01$). The biochemical response time to AA + P was not related to PFS (Pearson coefficient -0.09, $p = 0.61$) nor PSA response after switching (Pearson coefficient -0.05, $p = 0.78$). PSA nadir with AA + prednisone was related to the decrease percentage of PSA from basal after switching (Spearman coefficient -0.382, $p = 0.02$). Treatment with AA + Dexamethasone was well tolerated, without grades III / IV toxicities and without the need for dose reduction or suspension.

Conclusions: The switch from Prednisone to Dexamethasone is an acceptable option in asymptomatic BP as it achieves new PSA responses with PFS prolongation without an increase in toxicity. In our study, HS time and PSA nadir with AA + Prednisone were factors of good response to Switching.