EARLY PSA RESPONSE IS AN INDEPENDENT PROGNOSTIC FACTOR IN PATIENTS WITH MCRPC TREATED WITH NEXT-GENERATION ANDROGEN PATHWAY INHIBITORS

A.C. Furea1, G. Baciarello1, C. Massard2, L. Abigues Sauvin3, M. Gizzi1, S.A. Terrisse4, M. Di Palma1, B. Escudier5, Y. Loriot6

1Oncologie Medical, Institut Gustave Roussy, Villejuif, FRANCE
2SITEP, Institute Gustave Roussy, Villejuif, FRANCE
3Department of Medical Oncology, Institut Gustave Roussy, Villejuif, FRANCE
4Dept. Medical Oncology, Institut de Canc, Villejuif, FRANCE
5Medical Oncology, Institut de Cancérologie Gustave Roussy, Villejuif, FRANCE
6Department of Cancer Medicine, Institut Gustave Roussy, Villejuif, FRANCE

Aim: To determine the clinical significance of early PSA response during the first 4 weeks of therapy with next-generation androgen pathway inhibitors (enzalutamide, abiraterone acetate [AA], TAK-700) for metastatic castration-resistant prostate cancer (mCRPC).

Methods: Data from patients prospectively recruited in clinical trials were studied. PSA values were obtained at baseline and 28 days (+/- 7d) after treatment initiation. PSA response defined as a decline > 50% from baseline was calculated according to PCWG2 (Scher et al, 2008). The effects of patient, tumor, and treatment characteristics on progression-free survival (PFS) and overall survival (OS) were examined using the Cox model. An independent cohort of patients treated with AA was used as validation population.

Results: Early PSA response (EPR) was assessed in 118 patients treated with enzalutamide (AFFIRM and PREVAIL studies), AA (COU-AA-301 and 302 studies) and TAK-700 (C21004 and C21005 study). EPR was associated with longer PFS and OS (P < .0001). Median PFS was 5.6 and 13.9 months (hazard ratio [HR]: 2.6, p < 0.001) for patients without and with an EPR, respectively. Median OS was 16 months in patients without EPR and 32 months in patients with an EPR (HR: 2.0, p < 0.01). EPR remained predictive for OS in multivariate analyses that included pre-therapeutic prognostic factors for mCRPC (ECOG score, visceral disease, pain, albumin, PSA, Alkaline phosphatase, LDH, Hemoglobin; Halabi et al, 2014). Prognostic values of EPR for PFS (HR:1.9, p < 0.01) and OS (HR: 2.8, p < 0.01) were confirmed in a second independent cohort of 95 AA-treated patients.

Conclusions: Early PSA response is an independent prognostic factor in patients with mCRPC treated with next-generation androgen pathway inhibitors and may be useful for the therapeutic management of these patients.

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