Results: As of April 2024, 25 pts (median age 66 years old; median PSA 17.6 ng/dL) enrolled and had 0.25-54 months follow up. 15 pts had prior androgen receptor pathway inhibitor (ARPI), 4 had both ARPI and chemotherapy, and 6 had neither. 6 pts continued ARPI. 1 pt withdrew at 1 week to start a newly available standard therapy and is not included in efficacy analysis. 6-month PFS was 35.0% (95% CI: 16.4-54.3%) and 36-month OS was 66.9% (95% CI: 39.9-83.9%). 7/24 pts (29.2%) had PSA responses (1 had dMMR disease); 2 responders (pMMR) had confirmed PR. 5 pts had grade ≥3 treatment-related adverse events: hematuria (G3), non-infective cystitis (G3), anemia (G3), and eosinophilia (G3). 1 pt developed diabetes (G3) and neutropenia (G4) requiring steroids. 3 pts (all PSA responders) developed G3 central adrenal insufficiency (cAI) manageable with physiologic replacement.

Conclusions: BNVax + BA + Anktiva shows activity in CRPC. As expected, immunotoxicities occurred in several pts but we observed an unexpectedly high incidence of cAI only occurring in responders. This supports further study of tumor-targeted vaccine + cytokine + ICB in CRPC.

Clinical trial identification: NCT03493945.

Legal entity responsible for the study: Center for Cancer Research, National Cancer Institute.

Funding: This study was funded by the Intramural Program of the Center for Cancer Research, National Cancer Institute, NIH with this research being part of individual Cooperative Research and Development Agreements (CRADAs) between National Cancer Institute and the following individual entities: EMD Serono (a business of Merck KGaA), ImmunityBio and Bavarian Nordic, Inc.

Disclosure: P. Soon-Shiong: Financial Interests, Personal, Other, Employee, Board Member, Equity Owner, Patent holder: ImmunityBio. All other authors have declared no conflicts of interest.

https://doi.org/10.1016/j.annonc.2024.08.1712

1632P Impact of androgen pathway inhibitors on cognitive function in elderly patients with metastatic prostate cancer: Results from the COG-PRO trial

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Background: Androgen deprivation therapy (ADT) for metastatic prostate cancer (mPC) adversely impacts cognitive performance (objective cognition, OC) and increases perceived cognitive impairment (subjective cognition, SC). Androgen pathway inhibitors (ARPI) are commonly used in mPC, however few data are available on their impact on cognition in elderly patients (pts).

Methods: The COG-PRO trial was designed to assess cognition in castration-resistant mPC (mCRPC) pts aged ≥70 before initiation of ARPI (enzalutamide or abiraterone acetate plus prednisone) in addition to ADT, and after 3, 6, and 12 months, compared with pts receiving ADT alone, and healthy controls (HC). SC was examined with the Perceived cognitive impairment (PCI) and abilities (PCA) subscales of the FACT-COG questionnaire, and OC with cognitive tests assessing 6 objective domains (processing speed / attention, working memory, verbal memory, visual memory, visuospatial abilities, and executive functions). Overall OC impairment at baseline and OC declines during follow-up were estimated using ICCTF guidelines and reliable change index, respectively. Adjusted scores were then analyzed using linear models for objective domains separately and for SC.

Results: The analysis was conducted in 74 ADT+ARPI pts, 19 ADT pts, and 30 HC (aged 78, 74, and 75, respectively). At baseline, 51% of ADT+ARPI pts had overall OC impairment, vs. 26% of ADT pts ($p=0.072$) and 10% of HC ($p<0.001$). During follow-up, incidence of overall OC decline in ADT+ARPI pts ranged from 2% to 6%. Adjusted scores showed lower performance in mPC pts compared to HC throughout follow-up in processing speed/attention, working memory, verbal memory and executive function ($p\leq0.027$) and for SC (PCI: $p\leq0.005$). Adjusted scores also showed lower performance for ADT+ARPI pts compared to ADT pts for processing speed/attention at each visit ($p\leq0.010$). ADT+ARPI pts also reported poorer SC in the first 6 months of treatment compared to ADT (PCA: $p\leq0.033$).

Conclusions: Cognitive impairment is frequent in elderly mPC patients treated with ADT. ARPI appear to enhance the adverse cognitive effects ADT on OC and SC, and this should be considered in elderly pts candidates for these treatments.

Clinical trial identification: NCT02907372.

Legal entity responsible for the study: François Baclesse Center, Caen, France.

Funding: Astellas Pharma.

Disclosure: G. Baciarello: Financial Interests, Personal, Invited Speaker: Astellas; Financial Interests, Personal, Advisory Board: Novartis, Bayer, Astellas; Financial Interests, Institutional, Steering Committee Member: Bayer; Non-Financial Interests, Principal Investigator: Roche, Eli Lilly, MSD; Non-Financial Interests, Personal, Other, Meeting registration: Ipsen; Non-Financial Interests, Personal, Other, Travel Grant and meeting registration: Bayer; Non-Financial Interests, Member: ASCO, Meet-Uro. E. Meyer: Financial Interests, Personal, Invited Speaker: Ipsen, Astellas, Recordati. R. Ratta: Financial Interests, Personal, Invited Speaker: Ipsen, Astellas; Financial Interests, Personal, Advisory Board: Pfizer, Merck, Bristol Meyer Squibb, AstraZeneca, Janssen, Novartis. E. Guerdoux: Financial Interests, Personal, Invited Speaker, Speech about return to work after a cancer: CanceroConsult; Non-Financial Interests, Principal Investigator, Clinical trials on cognitive complaints in cancer, on psychological impacts of cancer or anti-cancer treatment: Montpellier Cancer Institute, Supportive care Department. A. Darlix: Financial Interests, Personal, Advisory Board: Servier, Novocure. M. Boone: Financial Interests, Personal, Advisory Board, Expert Board 18/04/2024: Servier; Financial Interests, Personal, Invited Speaker: Novocure. B. Clarisse: Financial Interests, Institutional, Other, Institutional financial support and drug supply for TALASUR trial conduction: Pfizer; Financial Interests, Institutional, Other, Institutional financial support for the CogPRO trial: Astellas; Non-Financial Interests, Institutional, Product Samples, drug supply for patients enrolled in the TALASUR trial: Pfizer. K. Fizazi: Financial Interests, Institutional, Advisory Board: Astellas, Bayer, Janssen, AAA, MSD, AstraZeneca, Novartis/AAA, Pfizer, Daiichi Sankyo; Financial Interests, Institutional, Invited Speaker: Astellas, Bayer, Janssen, Sanofi, MSD, AstraZeneca, Novartis, Pfizer; Financial Interests, Personal, Advisory Board: Curevac, Orion; Financial Interests, Personal, Advisory Board, February 2022: Arvinas; Financial Interests, Personal, Advisory Board, April 2022: Macrogenics; Financial Interests, Institutional, Research Grant, Trial chair: Pfizer, Bayer, AstraZeneca, Orion, MSD, BMS, Janssen; Non-Financial Interests, Principal Investigator, Chair of the 7DX phase 3 trial: BMS; Non-Financial Interests, Principal Investigator, Chair of the Docetaxel-pembrolizumab phase 3 trial: Merck; Non-Financial Interests, Principal Investigator, Chair of the Darolutamide BCR phase 3 trial: Bayer; Non-Financial Interests, Principal Investigator, Chair of the PSMAfore phase 3 trial: AAA/Novartis; Non-Financial Interests, Principal Investigator, Chair of the CYPIDES ODM-208 Phase I-II trial: Orion; Non-Financial Interests, Principal Investigator, Chair of the STESIDES ODM-209 Phase I-II trial: Orion; Non-Financial Interests, Principal Investigator, Chair of the CAPITELLO 281 phase 3 trial: AstraZeneca; Non-Financial Interests, Principal Investigator, Chair of the TALAPRO-2 and TALAPRO-3 phase 3 trials: Pfizer; Non-Financial Interests, Principal Investigator, Chair of the RADIANT phase 3 trial: Bayer; Non-Financial Interests, Principal Investigator, Chair of the TRITON-3 phase 3 trial: Clovis. F. Joly Lobbedez: Financial Interests, Personal, Advisory Board: GSK, AstraZeneca, MSD, Janssen, Ipsen, Bayer, Astellas, Eisai, Seagen, Novocure, Pfizer; Financial Interests, Personal, Invited Speaker: GSK, AstraZeneca, MSD, Janssen, Ipsen, Amgen, Novartis/3A, Eisai, Amgen, Eisai; Financial Interests, Institutional, Invited Speaker: Viatris; Financial Interests, Institutional, Coordinating PI: GSK, AstraZeneca; Financial Interests, Institutional, Research Grant: BMS, Astellas; Financial Interests, Institutional, Funding: Janssen; Non-Financial Interests, Member: GCIG; Other, travel and congress: MSD, Ipsen, Chugai; Other, travel: GSK, Eisai. All other authors have declared no conflicts of interest.

https://doi.org/10.1016/j.annonc.2024.08.1713

1633P Phase III study of talazoparib (TALA) + enzalutamide (ENZA) vs placebo (PBO) + ENZA as first-line (1L) treatment in patients (pts) with metastatic castration-resistant prostate cancer (mCRPC): TALAPRO-2 (TP-2) China cohort

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Background: TP-2 (NCT03395197) demonstrated improved radiographic progression-free survival (rPFS) for the all-comers cohort of pts with mCRPC (with/without alterations in homologous recombination repair [HRR] genes) who received 1L TALA + ENZA vs PBO + ENZA (not reached vs 21.9 mo, respectively; HR 0.63; 95% CI, 0.51—0.78; P<0.0001). We present the TP-2 China cohort analysis.

Methods: The China cohort includes pts from the all-comers cohort and China extension (unselected HRR gene status). Pts had asymptomatic/mildly symptomatic mCRPC, received ongoing androgen deprivation therapy, and were prospectively tested for HRR alterations in tumor tissue. Pts were randomized 1:1 to TALA 0.5 mg/day (moderate renal impairment 0.35 mg/day) or PBO; all received ENZA 160 mg/day. Primary endpoint: rPFS by BICR. Secondary endpoints included overall survival (OS), objective response rate (ORR), ≥50% PSA response, safety, and pt-reported outcomes.

Results: Data cutoff (China cohort): Nov 15, 2023 (N=125; TALA + ENZA, N=63 [HRR-deficient, n=14]; PBO + ENZA, N=62, [HRR-deficient, n=11]). TALA + ENZA improved