Project Summary Report

YODA Project Protocol #: 2022-5106

Assessing the Androgen indifferent prostate cancer patients response to novel antiandrogen-based regimen or taxanes

Objective
To evaluate whether clinical criteria used to define Aggressive Variant Prostate Cancer (AVPC)—a subtype of Androgen Indifferent Prostate Cancer (AIPC)—can identify patients with poor response to novel antiandrogen therapies (ARTAs), ARTAs combinations, androgen deprivation therapy (ADT) alone, or taxane-based chemotherapy.

Methods
We initially proposed a pooled analysis of individual participant-level data from multiple clinical trials in metastatic castration-resistant prostate cancer (mCRPC) patients, focusing on progression-free survival (PFS), overall survival (OS), and cancer-specific survival (CSS). Patients were to be stratified by AIPC status (yes vs. no), based on pre-defined clinical, pathological, and radiological features (e.g., lytic bone metastases, bulky lymphadenopathy, neuroendocrine markers, and time to CRPC progression). However, during data review, we found that key variables required to define AIPC status were not available in the datasets. Specifically, there were no data on:

- Presence of lytic bone metastases,
- Neuroendocrine marker status (e.g., Chromogranin A, synaptophysin),
- Bulky lymphadenopathy or prostate mass characteristics,
- Time to progression to castration-resistant status.

Due to these missing variables, we could not classify patients by AIPC status and therefore could not define our main independent variable. As a result, the primary and secondary analyses described in the original proposal could not be performed.

Results
Analyses were not completed because the data lacked essential clinical parameters needed to define the AIPC phenotype. No stratified survival analysis, multivariable Cox regression, or comparison of treatment regimens across AIPC subgroups could be conducted.

Conclusions
Analyses could not be completed due to insufficient data to define the primary independent variable, AIPC status. This highlights a critical gap in available clinical trial datasets when attempting to study heterogeneous prostate cancer phenotypes.