

**1934P** Encyclopedic tumor analysis for organ agnostic treatment with axitinib in combination regimens for advanced cancers

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**Background:** Anti-angiogenic agents are approved for treatment of various cancers like Colon, Ovary, Breast, Glioma, Lung, Kidney and Liver. Axitinib, a selective inhibitor of Vascular Endothelial Growth Factor Receptors (VEGFR 1 / 2 / 3) was initially approved as a single agent for treatment of advanced Renal Cell Carcinomas (RCC), following failure of one prior line of systemic therapy, and recently as frontline treatment for RCC in combination with Pembrolizumab. Currently, Axitinib is not approved by US FDA or recommended by NCCN for use in combination with cytotoxic/targeted or endocrine therapies. We show that Axitinib can be combined for treatment of advanced solid organ tumors based upon Encyclopedic Tumor Analysis (ETA) with clinical benefit.

**Methods:** Between January 1, 2017 and November 30, 2018, 191 patients obtained ETA for considering precision treatment options to treat advanced broadly refractory solid organ tumors. Fresh tumor biopsies were submitted for evaluation. In a cohort of 30 patients who received combination treatment with Axitinib and cytotoxic and/or targeted and/or endocrine agents based on ETA, treatment response was evaluated as per RECIST 1.1 criteria. Objective Response Rate (ORR), Clinical Benefit Rate (CBR) and Progression Free Survival (PFS) were retrospectively determined. Therapy related adverse events were reviewed from clinical records.

**Results:** Out of 30 patients treated with combinations of Axitinib and either targeted, cytotoxic or endocrine drugs Partial Response (PR) was observed in 13 (43.3%) patients and Stable Disease (SD) was observed in 17 (56.7%) patients. ORR was 45.7% and CBR was 97.1%. Median PFS was 125 days (Range 35-368 days). There were no Grade IV treatment related Adverse Events (AEs) or any treatment related deaths. The most common Grade III treatment related AEs were anorexia, fatigue, and neutropenia.

**Conclusions:** Axitinib in combination with appropriate targeted and/or cytotoxic and/or endocrine drugs determined by ETA is well tolerated and is a potent precision therapeutic option for advanced broadly refractory solid organ cancers irrespective of the organ of origin.

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