**Adam Lauko**

**Efficacy of Immune Checkpoint Inhibitors for Brain Metastasis from NSCLC, RCC, and Melanoma**   
**Background:** There is limited data evaluating benefit of Immune Checkpoint Blockade in Brain Metastasis. **The only prospective study was of 18 NSCLCBM patients treated with pembrolizumab**. We report overall survival (OS) and progression free survival (PFS) in Non-Small-Cell Lung Cancer (NSCLC), Renal Cell Carcinoma (RCC), and Melanoma treated either Nivolumab, Pembrolizumab and/or Ipilimumab.

**Method:** After IRB approval, patients with brain metastases treated with immune checkpoint blockade and whole-brain radiation therapy, surgery, or stereotactic radio-surgery at our tertiary care institution from 2014-2017 were reviewed. Univariate was used to assess OS and PFS.

**Results:** 45% of the patients were male, median age at the diagnosis of the lung cancer was 61 years. Most patients had good performance status (>80% with ECOG score of 0&1) at the time of the brain metastasis. 62% had supratentorial brain metastasis, 10% had infratentorial and 28% had both. 55 patients were started on the Nivolumab at the time of diagnosis of BM and 39 patients had Nivolumab after first progression of BM. The OS was 27.4 months when Nivolumab was given at the time of diagnosis of BM compared to 24.6 months when nivolumab was given after the first progression of NSCLCBM. PFS was similar at 3.7 months when nivolumab was given at the time of the diagnosis of NSCLCBM compared to PFS of 3.8 months when nivolumab was given after the first progression of NSCLCBM.