Clinical experience with Nivolumab in pre-treated patients with NSCLC. Single center experience.

Bernardo Leon Rapoport, Teresa Smit, Ronwyn Van Eeden, 1
1The Medical Oncology Centre of Rosebank, Johannesburg, South Africa

Background
Non Small Cell Lung Cancer
- Lung cancer is the leading cause of cancer death with only 17.4% 5 year survival.
- Only 17.4% of lung cancers can be classified as non small cell lung cancer (NSCLC), divided into two categories - non-squamous and squamous.

Nivolumab
- Nivolumab is a fully human IgG4 monoclonal antibody that binds to and blocks the activation of PD-1 by its ligand.
- Approval of nivolumab for advanced non-squamous NSCLC was issued in October 2015, based on demonstration of improved overall survival (OS) in CheckMate 017 and CheckMate 057 trials.
- The use of chemotherapy has produced objective responses and small improvement in survival for patients with NSCLC.

Methods
- A retrospective, single center, non-interventional analysis was performed on data collected from the nivolumab treatment program in South Africa (2014-2016).
- The study included patients with histologically- or cytologically-documented locally advanced squamous or non-squamous NSCLC.
- The patient had a history of severe hypersensitivity reactions to other monoclonal antibodies.
- The patient had another active malignancy requiring concurrent intervention.
- The patient had a life expectancy of less than 6 weeks.
- The patient had received other concurrent systemic anti-cancer treatments for NSCLC.
- Symptomatic brain metastases.
- Active, known or suspected autoimmune disease, HIV, Hepatitis B or C.
- A retrospective, single center, non-interventional analysis was performed on data collected from the nivolumab treatment program in South Africa (2014-2016).
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Results
- One patient developed autoimmune thrombocytopenia and nephritis.
- Partial Response was observed in 4 patients with a disease control rate of 75% (22/30). 2 patients achieved a complete response and 22 patients achieved a partial response.
- The overall survival rate was 69.2% at 6 months and 47.6% at 1 year.
- The progression free survival was 64% at 180 days (95% CI 47.6-80.4).

CONCLUSIONS
- In this retrospective study, engineered checkpoint inhibitors were an active and well-tolerated treatment in patients with pre-treated NSCLC.

Data Collection
- Data was collected from a prospective database maintained by the author of this poster.

Immune-related Adverse Events

References