OA13.03 - Long-Term Overall Survival for Patients with Malignant Pleural Mesothelioma on Pembrolizumab Enrolled in KEYNOTE-028 (ID 6165) (WCLC Vienna Dec 2016)

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Background:
Malignant pleural mesothelioma (MPM) is a highly aggressive cancer with poor prognosis and limited treatment options after progression on platinum-containing chemotherapy. Pembrolizumab, a humanized anti–programmed death 1 (PD-1) antibody, has demonstrated robust antitumor activity and a favorable safety profile in multiple tumor types. Here, we present long-term overall survival (OS) data for patients with malignant pleural mesothelioma enrolled in the KEYNOTE-028 (ClinicalTrials.gov, NCT02054806) study.

Methods:
KEYNOTE-028 is a nonrandomized, multicohort phase 1b trial of pembrolizumab in patients with PD-L1–positive advanced solid tumors. 25 patients with MPM were treated with pembrolizumab in the mesothelioma cohort. Patients received pembrolizumab 10 mg/kg every 2 weeks for up to 2 years or until confirmed progression or intolerable toxicity, death, withdrawal of consent, or physician decision. Response was assessed per RECIST v1.1 by investigators every 8 weeks for the first 6 months and every 12 weeks thereafter. Primary end point was objective response rate (ORR; per RECIST v1.1, investigator assessed). Secondary end points included safety, tolerability, progression-free survival (PFS), and OS.

Results:
As of June 9, 2016, median duration of follow-up was 18.7 months (range, 1.5-24.6 months), and 4 patients (16%) are still on treatment. ORR was 28% (n = 7); 12 (48%) patients had stable disease, resulting in a disease control rate of 76%; median duration of response was 9.2 months (range, 2.4-20.5+ months); median PFS was 5.8 months (95% CI, 3.4-8.2 months), with 6- and 12-month PFS rates of 50% and 25%, respectively. Median OS was 18.0 months (95% CI, 9.4 months-not reached) with 6- and 12-month OS rates of 83.5% and 62.6%, respectively. No new safety signals have been identified. Sixteen (64%) patients experienced a drug-related adverse event (DRAE), and 5 (20%) experienced grade 3/4 DRAEs. Three patients required dose interruption because of immune-related adverse events (1 each, ALT increased, iridocyclitis, and pyrexia/arthralgia). There was no treatment-related mortality or discontinuation due to DRAE.

Conclusion:
Single-agent pembrolizumab has significant clinical activity in patients with PD-L1–positive MPM. Responses from pembrolizumab in patients with MPM are durable; the 62.6% 12-month OS rate in this mostly pretreated patient population warrants further investigation. Long-term administration of pembrolizumab is feasible in patients with MPM, and no new safety signals were identified.