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TITLE: Use of PD-1/PD-L1 Inhibitors after First-Line Therapy in Esophageal Cancer Patients in the US

OBJECTIVES

Esophageal Cancer (EC) makes up only 3.2% of all cancers but ranks 6th among cancer-related deaths worldwide. This US-based real-world analysis examined use of PD-1/PD-L1 (PD(L)1) inhibitors in EC patients after receiving first line therapy.

METHODS

Newly diagnosed EC (including both adenocarcinoma and squamous cell carcinoma) patients initiating first-line treatment were identified in the IBM MarketScan® database (1/1/2015 – 7/31/2019), using ICD 9 and ICD10 codes. The patients were assigned to one of four cohorts: Chemotherapy Only (CTx), Radiation Only (RTx), Chemotherapy + Radiation (CTx+RTx) or esophageal transhiatal/transthoracic Surgery (TS). Index date was defined as first treatment start date.

RESULTS

There were a total of 5,750 EC patients starting first line treatment (CTx= 1,990, RTx = 2,596, CTx+RTx = 931, TS = 233). The average age was 63 years (SD=11.48) and 81% were male. The number of patients who received a PD(L)1 was 277; of those, 150 (54%) were from CTx, 86 (31%) from RTx, 41 (15%), from CTx+RTx and 0 from TS cohorts. The median time from start of first treatment to utilization of a PD(L)1 was 311 days in CTx, 335 days in RTx and 315 days in CTx+RTx. In all cohorts, pembrolizumab was the most prescribed PD(L)1 (73% CTx, 55% RTx, 56% CTx+RTx) followed by nivolumab (34% CTx+RTx, 35% RTx, 24% CTx). Furthermore, data showed the number of patients receiving a PD(L)1 more than doubled each year with the majority (60%) receiving the treatment in 2018 and 2019.

CONCLUSION

Findings from this real-world study suggest that PD(L)1 are increasingly used after first-line therapies especially in the CTx and RTx cohorts. This growth reflects an increasing investment in health care resources for EC treatment in the US, which is a positive development given the high level of unmet medical needs in these patients.