Background

Mesothelioma is directly associated with asbestos exposure. There are 2700 new cases of mesothelioma in the UK every year and 2500 deaths. Prognosis remains poor with 1 and 3-year survival of 38% and 7% respectively.

Methods

In this study, we collected data on the patients that had been diagnosed with malignant pleural mesothelioma in the University Hospitals of Morecambe Bay (UHMB) between 2014 and 2018. The primary outcome was overall survival (OS).

Results

We studied 78 patients; 83.3% were males. The mean age was 75 years and 83.4% of the patients had an Eastern Cooperative Oncology Group Performance Status (ECOG PS) of 0-2. Asbestos exposure was present in 80.8% of our population. The most frequent histological type was epithelioid (47.4%) followed by sarcomatoid (25.6%) mesothelioma.

First-line chemotherapy with either Cisplatin or Carboplatin combined with Pemetrexed was given in 57.7% of the patients (78.8% with ECOG PS: 0-1). Initial partial response was observed in 35.5% of the patients, stable disease in 35.5% while 22.2% progressed on treatment. As far as subsequent lines of chemotherapy are concerned, 28.9% of these patients received 2nd line and 15.6% 3rd line treatments.

Median OS was 8 months (95% CI, 7-11 months) while the estimated 1-and 3-year survival was 37.2% and 12.4% respectively. Median OS in the patients that received chemotherapy was 13 months compared to 4 months in those without treatment (P <0.0001) (figure 1). The histology-based analysis showed that the epithelioid type carried the best median OS (13 months) while sarcomatoid mesothelioma was associated with the worst survival (3 months) (P <0.0001) (figure 2).

Conclusions

Our results were compared with the National Mesothelioma Audit report 2018 and showed that we treated more patients with 1st line chemotherapy (57.7% vs 40%), especially in the patient group with ECOG PS of 0-1 (78.8% vs 59%). Our 1-year survival was similar to the national rate (37.2% vs 38%). However, we showed improved 3-year survival (12.4% vs 7%), which is probably a result of the higher chemotherapy rates.

Overall, the survival for malignant pleural mesothelioma remains abysmal and there is an emerging need for novel treatments. Immunotherapy is now being used as second line treatment while it is expected to be approved as first line in the coming months.