

## AB025. 155. Sarcopenia is highly prevalent and associated with poorer outcomes in pancreatic and oesophagogastric cancer: systematic review and meta-analysis

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**Background:** Sarcopenia is a depletion of skeletal muscle mass associated with increased morbidity and mortality in gastrointestinal malignancy. It has been increasingly reported with the recent advent of software to measure sarcopenia using standard staging CT. Patients with pancreatic, oesophageal and gastric cancer are potentially at increased risk due to nutritional complications. The aim of this review was to determine the prevalence and impact of sarcopenia in these malignancies.

**Methods:** Systematic literature search of Medline and Embase databases was developed with a medical librarian

and performed by two investigators following the PRISMA guidelines (search period 1990–August 2017). Studies were included if prevalence and method of sarcopenia measurement were reported. Other outcome measures included effect on morbidity and survival. Studies were grouped into pancreatic and oesophagogastric for analysis. Pooled estimation (ES) for prevalence was computed using random effects model and presented with 95% CI.

**Results:** After screening 473 titles, 17 observational studies (4,206 patients) in pancreatic and 30 studies (5,561 patients) in oesophagogastric were analyzed. Prevalence of sarcopenia was higher in pancreatic cancer (49.6%) compared to oesophagogastric (34%) ES 0.49 (0.39–0.59) *vs.* 0.34 (0.27–0.4). There was significant heterogeneity regarding definition of sarcopenia and reporting of outcome measures. In studies with sufficient data, sarcopenia was independent of BMI and independently associated with poorer survival and higher post-operative complications.

**Conclusions:** Sarcopenia detected during staging CT was present in half and one third of patients with pancreatic and oesophagogastric cancers respectively and is a poor prognostic indicator. This justifies further research into the mechanism and potential treatment.

**Keywords:** Pancreas; cancer; sarcopenia; incidence

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