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Nutritional and clinical characteristics of patients with gastrointestinal tract (GI) cancers at presentation

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Weight loss is a predictor of poorer outcome in patients with cancer^(1,2). Patients with cancers of the GI have been reported to present with the greatest amounts of weight loss but the associations between weight loss and site of primary and stage of disease are poorly described and the relationship between metastatic disease and weight loss is unknown^(2,3,4). These data are important in planning nutritional interventions in this patient group. The aims of the present study were to: (1) define the nutritional status of patients presenting with GI cancers; (2) explore the associations between nutritional status and clinical characteristics.

All new patients with GI cancers referred for consideration of chemotherapy were included in the current study. Height and weight in indoor clothing, without shoes was measured. Patients were asked to recall their usual weight. Clinical and demographic information was obtained from electronic records. The tumour stage from computerised tomography scan or pathology specimen was recorded according to the tumour, node, metastases system. ANOVA was used to examine relationships between weight loss and each variable. A general linear model was applied to allow the influence of factors to be considered together.

In total 1415 patients were recruited (838 males and 577 females; mean age 67.1 (sd 12.3) years). The mean percentage weight loss at presentation was 7.2 (sd 8.41). Patients presented with tumours of the oesophagus and stomach (*n* 342), pancreas (*n* 177), lower GI (*n* 792), liver and biliary (*n* 42), unknown primary (*n* 34) and other (*n* 27). The findings for the three main tumour sites are presented.

Site of disease	<i>n</i>	No weight loss	Weight loss	>10% weight loss
Lower GI tract	792	244 (28%)	568 (72%)	214 (27%)
Oesophagus and stomach	342	75 (22%)	267 (78%)	127 (37%)
Pancreas	177	23 (13%)	154 (87%)	88 (50%)

Weight loss at presentation ranged from 72% to 87%. It was found that 27–50% of patients had clinically significant weight loss (>10%) at presentation, with the largest amounts being found in patients with tumours of the pancreas. Weight loss at presentation was associated with having upper GI disease ($P<0.001$), T-stage 4 disease ($P=0.014$) and a higher performance status. There was no significant association found between weight loss at presentation and presence or absence of metastatic disease ($P=0.116$). The influence of recent surgery was dependent on the site of disease and weight loss was significantly less common in patients with lower GI disease having recent surgery ($P<0.004$) and more common in patients with upper GI disease having recent surgery.

Weight loss at presentation for all GI tumours is common and is associated with tumours of the upper GI tract, advanced tumours, poor performance status and undergoing surgery in the months prior to chemotherapy for patients with upper GI tumours.

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