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Pancreatic Enzyme Supplementation Improves Quality of Life in Patients Following Surgery for Upper GI Cancer

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Abstract

Background: Unpleasant abdominal symptoms are common following surgery for upper gastrointestinal (UGI) cancer and may occur secondary to pancreatic exocrine insufficiency (EPI). This study investigated symptoms of EPI in patients following surgery and assessed the effect of pancreatic enzyme supplementation (PERT) on these symptoms and the effect of supplementation on quality of life.

Methods: Patients were assessed for symptoms of EPI using a novel questionnaire. Patients who reported two or more symptoms suggestive of EPI were prescribed PERT. Abdominal symptoms were reassessed following treatment. Quality of life (QoL) was studied using the SF-36 questionnaire before and after treatment. Faecal elastase was measured in a patient subgroup.

Results: Fifty-six out of 57 patients (98%) reported at least two symptoms of EPI. Following PERT every patient reported fewer abdominal symptoms; median 5 symptoms before treatment reduced to two symptoms following treatment ($p<0.0001$; Wilcoxon rank). Reduced faecal elastase concentration was associated with more frequent abdominal symptoms; median 5 symptoms versus 3 symptoms ($p = 0.043$; Mann Whitney U test). PERT increased quality of life scores for every patient in each of the 5 principle health domains.

Conclusion: Symptoms of EPI are common among patients following UGI cancer surgery. PERT reduces unpleasant abdominal symptoms and this leads to significant improvements in quality of life across global health domains. PERT should be offered to all post-operative UGI cancer patients with symptoms suggestive of EPI.

Key words: esophageal cancer; gastric cancer, exocrine pancreatic insufficiency, pancreatic enzyme replacement, PERT