

Assessing adherence to nutritional components of the enhanced recovery after surgery pathway for pancreaticoduodenectomy surgery and impact on nutritional status

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Introduction

Pancreaticoduodenectomy (PD) surgery serves as the standard surgical approach for resectable malignancies as well as benign diseases restricted to the pancreatic head. Enhanced recovery after surgery (ERAS) perioperative pathways are designed to achieve early recovery for patients undergoing major surgery. ERAS contains fundamental nutritional components which reduce the body's response to surgical stress and improves postoperative outcomes.

Aim

To assess the adherence of ERAS nutritional components and their impact on nutritional status.

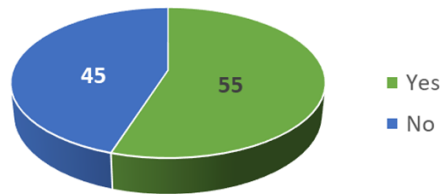
Methods

Patients undergoing PD surgery between January and October 2023 were included in the study. A retrospective review of electronic medical records was conducted. ERAS Nutritional components included: daily recommendations for oral diet, oral nutritional supplements (ONS) and pancreatic enzyme replacement therapy (PERT). Adherence of ERAS nutritional components was calculated as (number of nutritional components adhered to ÷ number of relevant nutritional components) x 100. Patients were categorised into high ($\geq 70\%$), low (69%-50%) and very low adherence (<50%) groups. Global Leadership Initiative on Malnutrition criteria were applied to pre-surgery and 90-day post-surgery nutritional data to determine malnutrition prevalence. Analyses were performed with IBM SPSS 29 with $p < 0.05$ considered statistically significant.

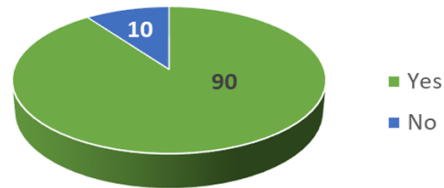
Results

39 patients were included in the study. Median age: 66 years, 26/39 (67%) were male. Four patients (10%) were categorised as high ($\geq 70\%$), 15 (38%) as low (69%-50%) & 20 (51%) as very low (<50%) adherence.

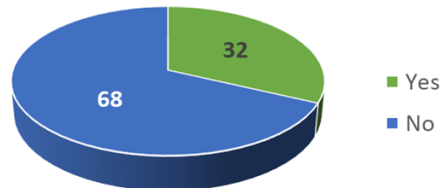
Adherence to ERAS Nutritional Components



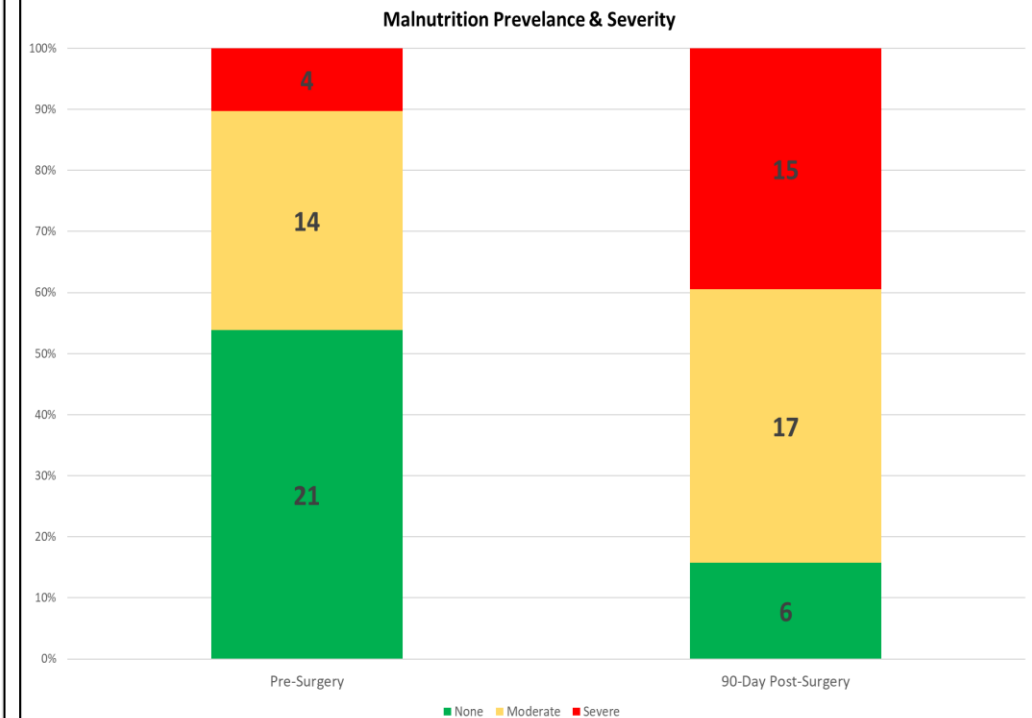
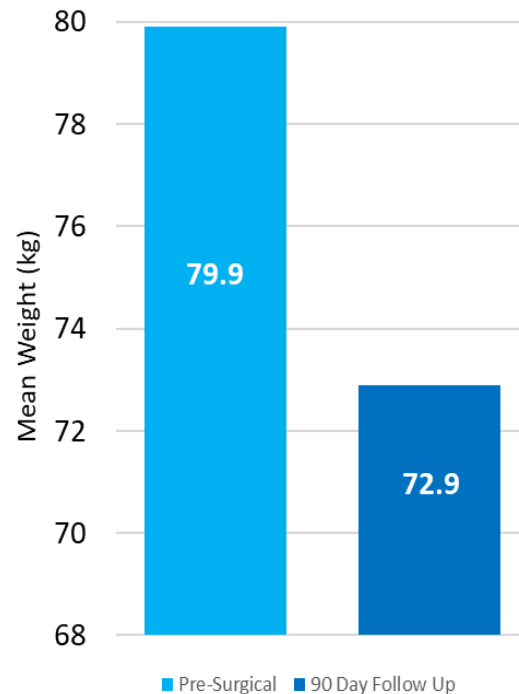
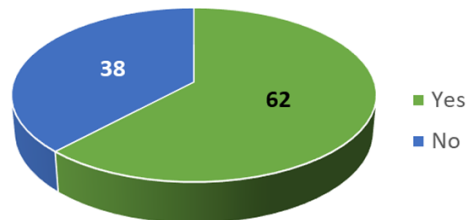
Diet



ONS



PERT



Conclusions

Overall adherence of ERAS nutritional components was low, particularly the ONS components. Significant weight loss and increased prevalence of malnutrition at 90-day follow-up highlights the negative effects of PD surgery on nutritional status.

Addressing aspects of low adherence to nutritional components of ERAS pathway may help to minimise weight loss and malnutrition prevalence. This should be a focus for education and training within our centre and reassessed in future work.