

AB201. The positive impact of prehabilitative parenteral nutrition (PN) on outcome and functional status in colorectal surgery—a case report

Marie Sheahan¹, Emmet Andrews²

¹Department of Nutrition and Dietetics, ²Department of Surgery, Cork University Hospital, Wilton, Cork, Ireland

Abstract: Nutritional prehabilitation has yet to be adopted fully in the clinical setting. A 78-year-old female was admitted to a level 1 trauma centre in January 2019 with an increased stoma output, weight loss and lethargy. In February her care was transferred to the colorectal surgery team for assessment for stoma reversal. A nutritional prehabilitation programme was devised and implemented with the following aims: reduce her stoma losses, stabilise her renal function and increase her weight and muscle mass preoperatively. Following dietetic assessment and intervention, modifications to both her enteral intake and medications did not achieve the targeted outcomes.

A switch to supplemental parenteral nutrition (PN) was deemed more appropriate. A patient specific regimen was administered for a 3-week period preoperatively and was discontinued 2 weeks postoperatively once 80% of her protein and energy requirements were achieved orally and bowel motions had stabilised. After prehabilitation, both adhesiolysis and closure of ileostomy were successful. Following the introduction of supplemental prehabilitative PN, the patient's weight increased from 34.6 to 42 kg preoperatively. Her handgrip strength was assessed using handgrip dynamometry. This increased in both her right and left side by 5 and 13 lbs, respectively. Despite studies showing its benefit, adequate time to prehabilitate patients is often not factored into their treatment plan. Two to four weeks is a likely a reasonable time frame for preoperative optimization. Preoperative nutritional interventions should be factored into the treatment plan of all surgical patients who are found to be malnourished or at high risk of malnutrition.

Keywords: Nutrition; prehabilitation; colorectal surgery

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