

Surgical management of severe protein malnutrition post Duodenal Switch

Introduction:

Severe hypoalbuminemia is a well-known risk after Biliopancreatic Diversion with Duodenal Switch (BPD-DS). Scientific data is lacking on the effectiveness of surgical revisions for this complication.

Objective:

To review the effectiveness of the different surgical options for the management of protein malnutrition following BPD-DS.

Methods:

Single center, retrospective study of all patients who required a surgical revision after BPD-DS for the management of protein malnutrition. Minimal follow up was one year. Data were obtained from a prospective electronic database and are reported as the Mean \pm Standard Deviation.

Results:

3790 patients underwent a BPD-DS between January 1993 and January 2015 in our Centre. Among these, 59 (1.5%) required a surgical revision for protein malnutrition and are the focus of this study. The initial age of the patients was 44 ± 10 years, sex ratio 37F/22M, weight of 137 ± 32 kg and BMI of 50 ± 10 kg/m². Patients required a revision at a mean 58 ± 48 months (m) after surgery. Their nadir weight and BMI were 64 ± 15 kg and 23 ± 5 kg/m². The revisional techniques used consisted in lengthening of the common channel (n=27, median lengthening of 100cm), feeding jejunostomy (n=20) and complete reversal of the intestinal bypass (n=12). The efficacy to correct protein malnutrition was 88% (24/27) for common channel lengthening, 70% (14/20) for feeding jejunostomy and 100% for complete reversal. An additional surgery was required in 9 patients (15%) to correct ongoing protein malnutrition in the first two groups.

The weight regain was 10 ± 9 kg following lengthening of the common channel; 5 ± 8 kg after feeding jejunostomy and 27 ± 20 kg after complete reversal.

Conclusion:

Surgical revision for protein malnutrition is uncommon after BPD-DS (1.5%).

Lengthening of the common channel is effective in most patients (88%) and results in a mean 10kg weight regain. Feeding jejunostomy is less effective (70%) but also results in less weight regain (5kg).