Common channel length predicts outcomes of biliopancreatic diversion alone and with the duodenal switch surgery.

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Abstract

BACKGROUND: The optimal common channel (CC) length for malabsorptive weight loss surgeries is unknown even though these surgeries were developed in the 1970s (biliopancreatic diversion [BPD]) and the 1990s (biliopancreatic diversion with a duodenal switch [BPD DS]). We hypothesized that the length of the CC correlates with a successful weight loss result.

METHODS: We evaluated 3 groups of patients based on the length of the CC whose duration of follow-up evaluation was at least 1 year. We reviewed all patients who had either an open BPD (5 patients) or a BPD DS (119 patients) from August 1998 to October 2003, for which D.B.M. was the participating surgeon.

RESULTS: Group I comprised 15 patients: their preoperative body mass index (BMI) was 53.9 kg/m(2); 73.3% of patients had a BMI more than 50, and the CC length was 150 cm. Group II comprised 76 patients: their preoperative BMI was 54.25 kg/m(2); 73.3% of patients had a BMI more than 50, and the CC length was 100 cm. Group III comprised 33 patients: their preoperative BMI was 60.1 kg/m(2); 84% of patients had a BMI more than 50, and the CC length was 80 to 90 cm. The mean weight loss in group I was 45 kg (44% mean excess weight loss). The mean weight loss in groups II and III was 55.8 and 61.5 kg, respectively (a 57% and 54.8% mean excess weight loss, respectively) (all P < .05 by analysis of variance). A weight loss of greater than 50% of excess body weight occurred in 40% of patients in group I versus 63% of patients in groups II and III combined (P < .01 by chi(2)).

CONCLUSIONS: The length of the CC contributes significantly to successful excess weight loss in BPD and BPD DS patients. In general, the length of the CC should not exceed 100 cm.