Total Bowel Length in Bariatric Surgery Patients in the Middle East

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Background

- Accurate **assessment of total bowel length (TBL)** is paramount in optimizing **surgical strategies** for bariatric procedures and predicting postoperative outcomes.
- We encountered a patient with TBL of 250cm during revisional procedure which prompted us to start measuring TBL. In other cases, common channel(CC) was found to be too short causing severe malnutrition in revisional cases from outside the institution
- Understanding the **variability in bowel length** within this population is essential for **tailoring surgical approaches** and ensuring successful weight loss outcomes as well as early identification of patients who are at **risk of malnutrition** if following the standardized lengths in bariatric procedures.
- The objective of this study is to **evaluate the TBL** in patients undergoing bariatric surgery and to characterize the baseline demographics as well as show the **safety and importance of TBL measurement.**

Materials and Methods

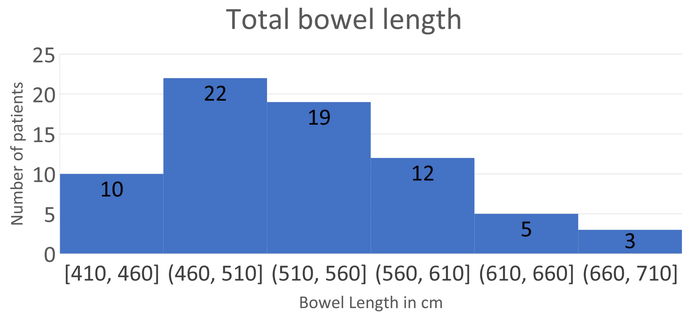
- **Retrospective** study from **October 2022 to March 2024** from prospectively maintained bariatric surgery registry at **Cleveland Clinic Abu Dhabi (CCAD)**.
- Inclusion criteria: Patients who underwent bariatric procedures with **measured TBL** were included in the study.
- All patients received 20mg Buscopan after induction, measurement was done using 2 instruments with markings at 5 and 10cm. Patient tilted laterally to facilitate measurement. We commence measurement from ligament of treitz until measuring deemed challenging then a vicryl suture is placed as a marker and counting resumes from the cecum retrograde to the suture.

Results

- **71** consecutive bariatric surgery patients: 58 patients were females and 13 were males
- TBL assessment was **successfully completed** with no iatrogenic bowel injury
- As the technique was developed, it was noted that the measuring time reduced from 18 minutes to 9 minutes with no reported injuries

Demographics	
Number of patients (n)	72
Sex (Male : Female, %)	18% : 82%
Age, years (mean, SD)	40 ± 10
BMI, kg/m2 (Min - Max)	18.4 - 55
Underwent Revision Roux(n, %)	44, 62%
Underwent Primary Roux(n, %)	27, 38%

Surgical data	
Mean TBL measuring time (minutes, SD)	14.5 ± 3
Mean TBL (centimetres, SD)	529 ± 65
TBL measurement completion (%)	100
Iatrogenic bowel injury (%)	0



Conclusions

- **Measurement** of TBL is a safe and feasible without significantly increasing operative times and intraoperative complication rates.
- **Tailoring bariatric procedures** to individual bowel length variations may lead to **enhanced** weight loss results as well as prevention of malnutrition.



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