

Weight Optimisation in Obese patients to reduce risk for Day-case Laparoscopic Hysterectomies

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BACKGROUND

26% of women in the UK are clinically obese with a BMI greater than 30. The obesity pandemic is placing an increasing burden on healthcare resources and this is strongly felt in both obstetrics and gynaecology.

To combat the ravaging affect of COVID-19 on elective gynaecological operating, St Richards Hospital implemented a very successful day-case laparoscopic hysterectomy (DCLH) pathway.

This allow provision of surgery independent of the hospital bed status.

Initially, to avoid admissions, patients with a BMI>35 were exempt from inclusion. However, with obesity a causative of endometrial pathology such as hyperplasia and malignancy, we were excluding the patients we wanted to treat. Therefore, we capitalised on patient motivation and introduced weight optimisation programme for BMI>35 patients to join the DCLH pathway.

BENEFITS

By reducing pre operative weight, the benefits include

1. Allow a safer general anaesthetic by reducing symbiotic co-morbidities e.g. Diabetes, Obstructive sleep apnoea, cardiovascular disease
2. Reduce the alteration in pharmacokinetic parameters
3. Improved airway safety and respiratory mechanics
4. Reduce venous thromboembolism and infection risk
5. Reduce or reverse the pathology eg endometrial hyperplasia or malignancy
6. Safer laparoscopic operating field and avoid open surgery
7. Reduce physical strain for theatre team and operating surgeons
8. Shorter hospital stay

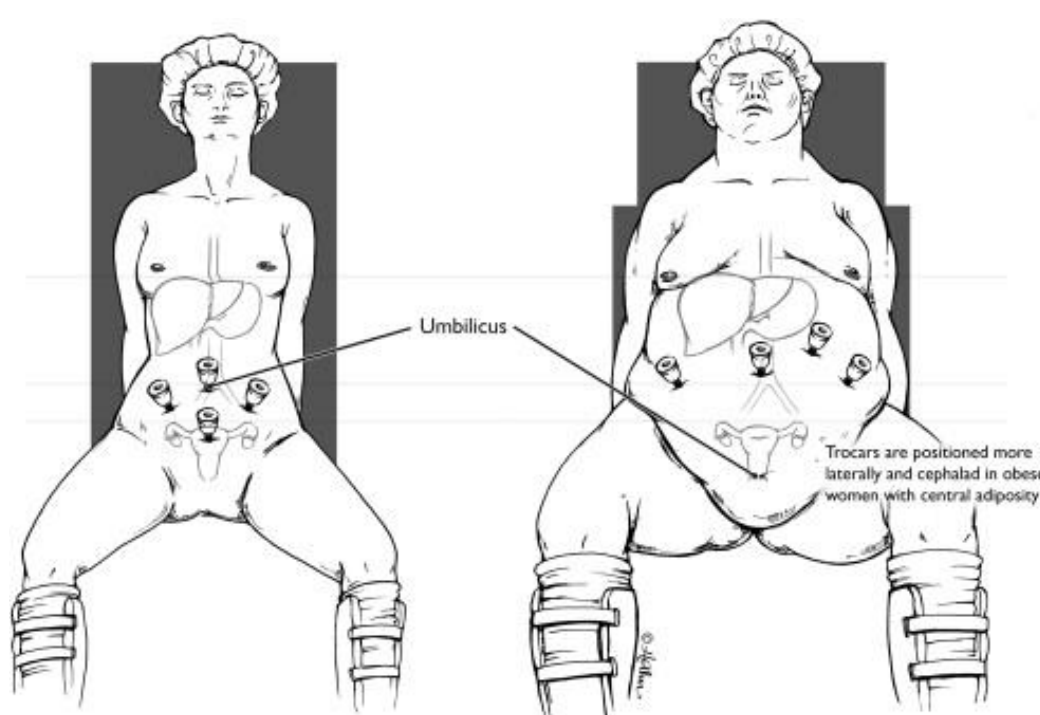


Fig.1 Demonstration of the difficulties of port placement due to BMI

METHODS

Through imperative multidisciplinary team working, we introduced a day-case laparoscopic hysterectomy (DCLH) pathway. This allowed patients to receive treatment independent of the hospital bed status.

To allow the service to support patients with BMI>35, we recruited the support of the Bariatric team and discussed the process of referring patients for weight loss surgery prior to laparoscopy.

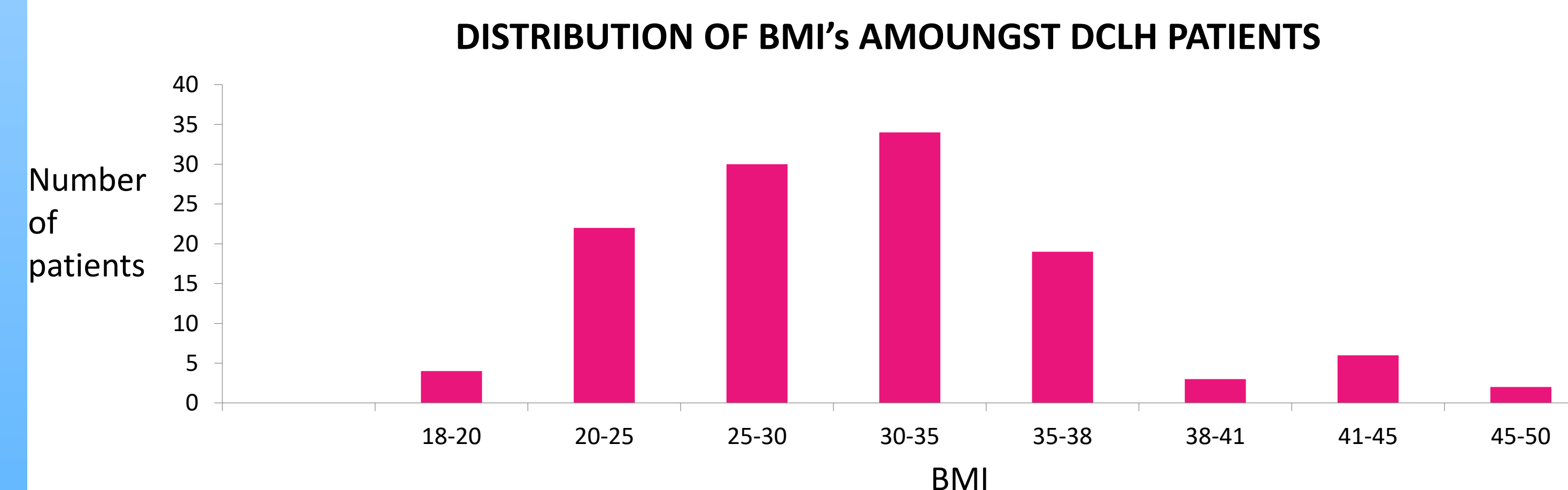
For patients with a BMI of >35, each patient had weight optimisation discussed in clinic. They were weighed with their BMI established and advised on the benefit of a 10% weight loss.

WHO CLASSIFICATION OF WEIGHT STATUS	
WEIGHT STATUS	BODY MASS INDEX (BMI), kg/m ²
Underweight	<18.5
Normal range	18.5 – 24.9
Overweight	25.0 – 29.9
Obese	≥ 30
Obese class I	30.0 – 34.9
Obese class II	35.0 – 39.9
Obese class III	≥ 40

Fig.2. Classification of Weight Status

For patients with active malignancy, they were not offered bariatric referral for optimisation pre surgery unless the risk of laparoscopy/ laparotomy/ general anaesthetic was too grave. Otherwise, any patient with a BMI>35 with comorbidities or >40 were offered referral to the Bariatric service. This involved meeting with the dietician and Surgeon to discuss their options. Gynaecology would liaise with Bariatrics after every review and ensure monitoring if required.

RESULTS



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- Of the 120 patients who underwent DCLH, 30 had a BMI of >35
- 26% of patients with BMI>35 had malignancy vs 16% of patients with BMI<35 having malignancy
- Patients with BMI>35, have 1.6x increased risk of malignancy
- 15 patients had no documentation of weight optimisation offered
- Of the remaining 15
 - 4 underwent gastric bypass (all with BMI>44)
 - 1 weight optimised with dietician help
 - 3 weight reduced weight by 10% on their own
 - 7 made no change in their weight
- Average reduction in BMI 3.375 over a 12 month period

CONCLUSIONS

While a pathway that requires further exploration, discussion of weight optimisation and offering referral for bariatric support to gynaecological patients with benign disease can tackle morbid obesity and its comorbidities.

More work is required to establish this throughout gynaecological practice and focus on patient education.

The preliminary results are encouraging and it would be beneficial to revisit this cohort to review the change in other medical pathologies such as diabetes and obstructive sleep apnoea.

Gynaecologists should not be afraid to address BMI in such patients to ensure holistic and honest information of their overall health is sensitively explored.

References:

1. RCOG Scientific Impact Paper on the role of bariatric surgery for improving reproductive health 2011
2. A. Scheib MD ^a, Edward Tanner III MD ^b, Isabel C. Green MD ^a, Amanda N. Fader MD ^b Laparoscopy in the Morbidly Obese: Physiologic Considerations and Surgical Techniques to Optimize Success. Journal of Minimally Invasive Gynecology Volume 21, Issue 2, March–April 2014, Pages 182-195