

Operational Difficulties in Obese Patients

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ABSTRACT

Background and aim of the work: to give optimal care for obese surgical patients, surgeons and healthcare personnel should be aware about the surgical problems which may be met in obese patient and how to overcome a variety of challenges. In this study the awareness of the surgeons about the obesity as surgical problem would be evaluated from the surgical staff point of view.

Patient and methods: a cross-sectional study was done by interviewing the surgeons to fill the questionnaire focusing on their awareness about the prevalence of operational difficulties in obese patients.

Results: the study included 82 surgeons most of them practice general surgery. The majority of surgeons found that the main cause of obesity amongst their patients is dietary factors (91.5%). The same percent of surgeons (higher percentage in residents) agreed that obesity might modify the surgical decision. According to the survey, they patients of age between 30-45years represented the majority and most of them were females. Over 89% of surgeons found that the complications are more in obese patients than in average weight patients. All specialties (especially general surgeons) agreed that obesity increases the operative time. Infection was the major problem mentioned by surgeons followed by anesthetic problems and the size of the instrument used. Over 64.6% of surgeons agreed that some operations need to reduce patient weight to be performed. Most of surgeons (42.7%) agreed that surgical error is higher in obese patients; however, 37.8% agreed that surgical errors in obese and average weight patients are equal. The majority of surgeons (68.3%) agreed that experience of the surgeon will differ in theatre. 81.7% of surgeons agreed that obese patient needs more evaluation prior to surgery than average weight patient. 72% agreed that obese patients have prolonged hospital stay.

Conclusion: The study revealed a good to excellent awareness of KSA surgeons about surgical problems which may be met in obese patient and how to overcome a variety of challenges reflecting the values of continuous medical education programs applied in their hospitals.

Keywords: KSA surgeons, obesity complications, perioperative care

INTRODUCTION

According to most of surgeons; the operative difficulties in obese patients include, the length of surgery increasing the chance of complications⁽¹⁾. The length of the wound increases the blood loss⁽²⁾. The tissue is harder to retract and displace, increasing the difficulties of exposure of the target, in addition, poor visibility leads to more chance for surgical error⁽³⁾. To operate from a greater distance, surgeons need longer instruments and bigger retractors, which add expense and are harder to handle⁽⁴⁾.

Postoperatively, in addition to the difficulty in transportation, obese patients have a much greater chance of surgical site infection with an incidence of dehiscence reaching up to 10%⁽⁵⁾. They have a higher percentage of respiratory problems especially with the use of sedation. The intubation of obese patients will be difficult and may require video assistance⁽⁶⁾. They have also higher liability for thromboembolic disease⁽⁷⁾. In this study the awareness of the surgeons about the obesity as

surgical problem would be evaluated from the surgical staff point of view.

PATIENT AND METHODS

In this A cross-sectional prospective study which was conducted at different tertiary hospitals in KSA from June 2016 to January 2017. The study included 82 surgeons; 22 consultants (26.8%), 25 specialists (30.5%), and 35 residents (42.7%). The study was approved by the Ethics Board of Taif University. The study was done by interviewing the surgeons through the social media to fill the questionnaire focusing on their awareness about the prevalence of operational difficulties in obese patients. Statistical analysis: Data were gathered, tabulated. SPSS program, version 20.0(SPSS Inc., Chicago, IL, USA) was used. The data were expressed in number and percentage (qualitative) whereas, the quantitative data were expressed as means \pm SD.

RESULTS

The study included 82 surgeons with mean age of 41.25±9.8 years; most of them practice general surgery. The majority of surgeons found that the main cause of obesity amongst their patients is dietary factors (91.5%). The same percent of surgeons (higher percentage in residents) agreed that obesity might modify the surgical decision (Figure 1). According to the survey, they patients of age between 30-45years represented the majority and most of them were females. Over 89% of surgeons found that the complications are more in obese patients than in average weight patients (Figure 2). All specialties (especially general surgeons) agreed that obesity increases the

operative time. Infection was the major problem mentioned by surgeons followed by anesthetic problems and the size of the instrument used. Over 64.6% of surgeons agreed that some operations need to reduce patient weight to be performed. Most of surgeons (42.7%) agreed that surgical error is higher in obese patients; however, 37.8% agreed that surgical errors in obese and average weight patients are equal. The majority of surgeons (68.3%) agreed that experience of the surgeon will differ in theatre. 81.7% of surgeons agreed that obese patient needs more evaluation prior to surgery than average weight patient (Figure 3). 72% agreed that obese patients have prolonged hospital stay.

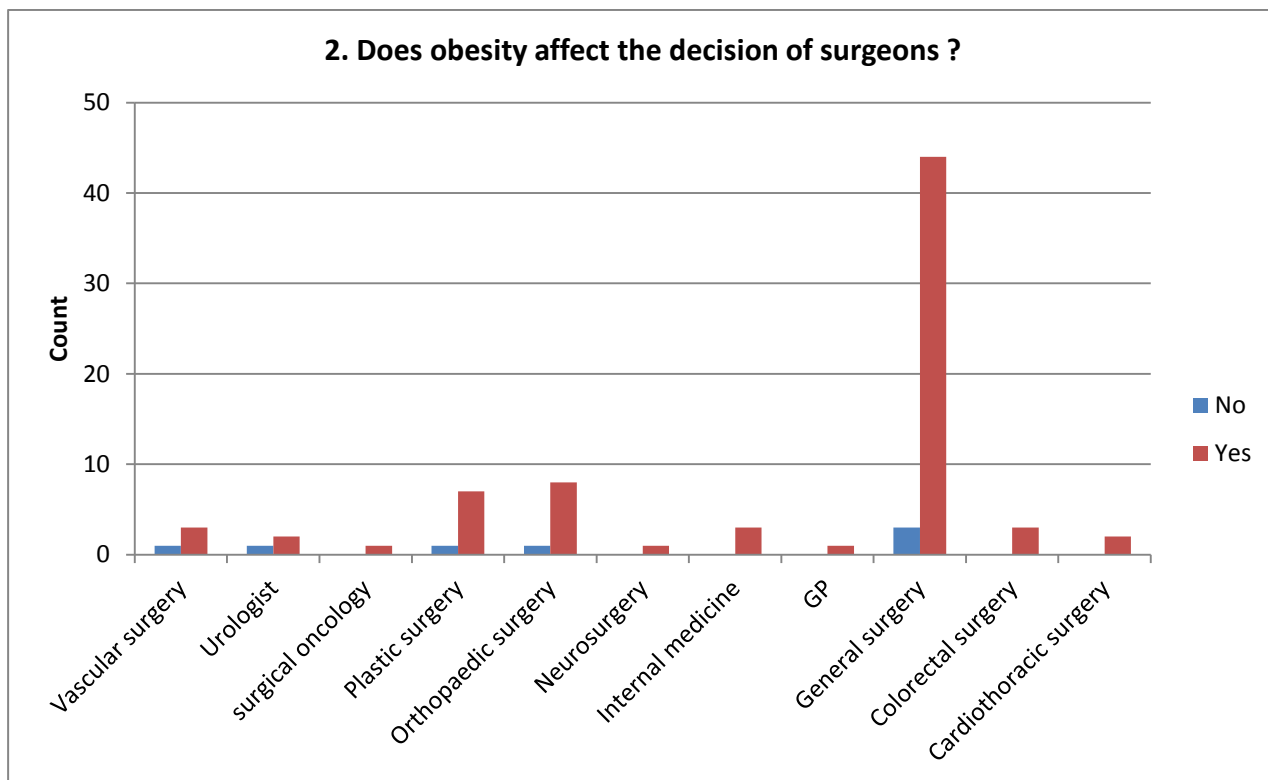


Figure (1): answers for question (2)

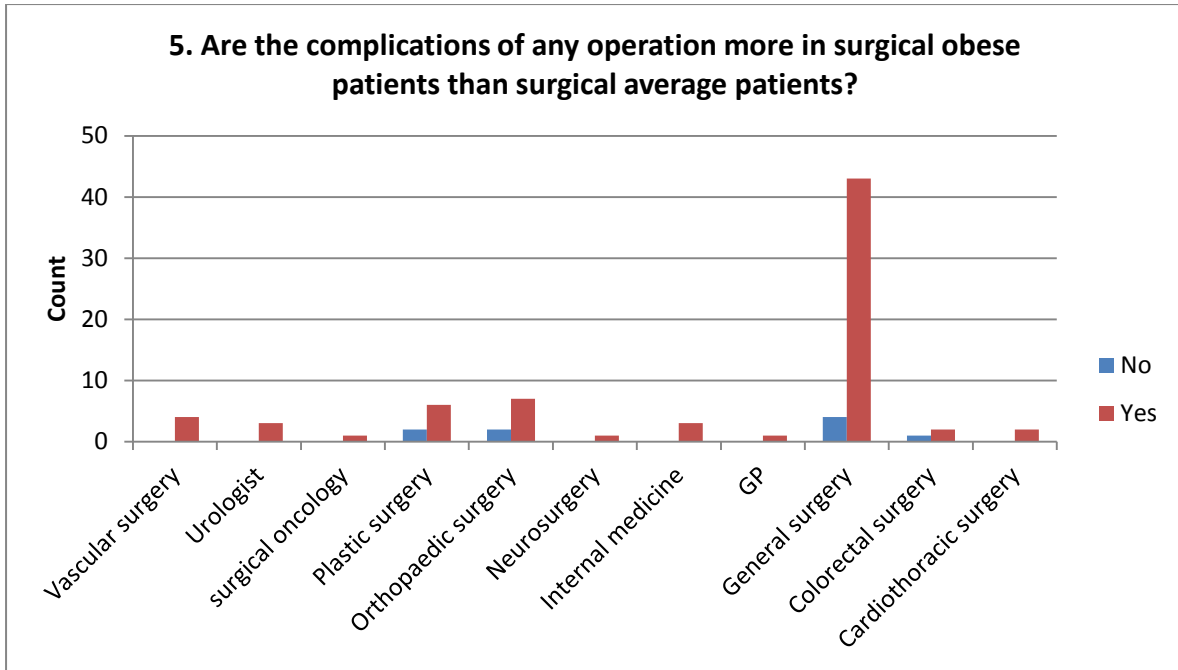


Figure (2): answers of question (5)

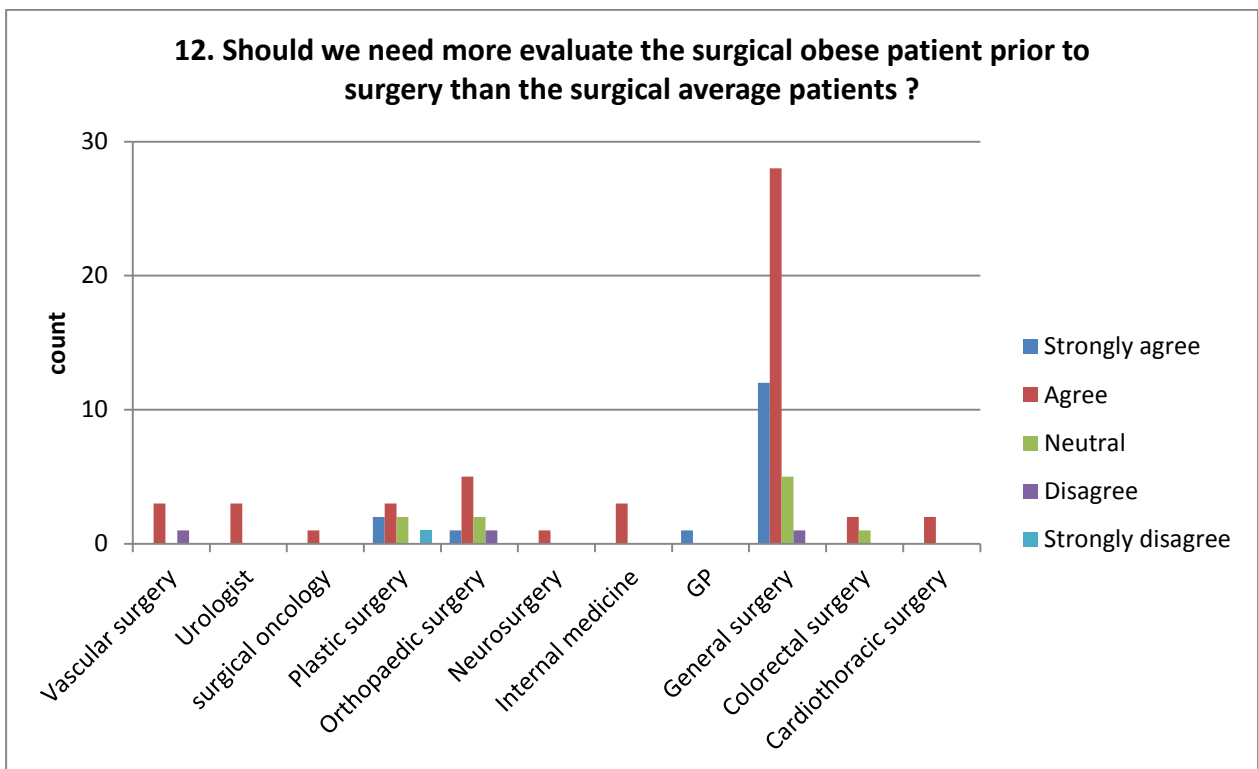


Figure (3): answers of question (12)

DISCUSSION

Obesity and other risk factors of non-communicable diseases (NCDs) are now emerging problems in all countries ⁽¹⁾. Incidence of Obesity is estimated to rise over the coming years and interventions to reduce the burden of obesity partly depend on recognizing and

understanding the complications of obesity ⁽²⁾. Clinicians are reminded to look for these complications in obese patients ⁽³⁾. This study aimed at evaluation of the degree of awareness of the surgeons in KSA about the obesity as surgical problem.

Discrimination based on weight is common in most of the societies and can have a negative impact on the overall health of obese people⁽¹⁻³⁾. In one study, about 70% of the overweight and obese women surveyed reported weight-based discrimination from healthcare professionals⁽⁴⁾. However, awareness about the difficulties which would be met during operations for obese patients would minimize the complication rate. In our study the majority of surgeons were aware about the different risk factors in obese patient.

Healthcare providers may consider obese patients lazy with noncompliance and lacking of personal responsibility, in addition, they may also perceive an increase in the work effort required to care for an obese patient⁽⁷⁻¹⁰⁾. So, obese patients who feel like second-class patients may further delay or avoid necessary medical care⁽⁹⁾. In our study most of surgeons has no bias regarding obese patients, especially those with formal training for hospital employees who are working in bariatric surgical centers.

As the number of obese patients increases, weight-bias education and policies should become mainstream. To provide optimal surgical care for the growing number of obese surgical patients, surgeons and other healthcare personnel must overcome a variety of unique challenges⁽¹⁰⁾. In our study these trends were common between surgeons, where, routine procedures and the surgeon decisions, perioperative patient evaluation, and post operative standard treatment protocols were often be modified to safely manage obese patients.

Psychological issues related to obesity are an additional factor that frequently must be addressed during the perioperative period^(1, 8). In our study this factor was not clearly evaluated.

Obesity prevents certain medical procedures being done either due to the physical weight itself, or due to the increased risk of complications (including infections); this may include, Computer Tomography scan and Magnetic resonance imaging machines as their tables have a weight limit 204Kg, many obese patients may not be operated on purely due to surgical mortality risk associated with obesity, and obesity is also obstetric risk and is associated with increased risk of certain infections which may require tertiary level care which may not always be accessible^(1, 5, 8).

An optimal environment for obese patients should be free of obesity-related prejudice and as the number of obese patients continues to escalate,

hospitals must adapt to accommodate the various needs of this patient population to provide them with safe, timely, and high-quality medical care⁽⁸⁾.

Conclusion: The study revealed a good to excellent awareness of KSA surgeons about surgical problems which may be met in obese patient and how to overcome a variety of challenges reflecting the values of continuous medical education programs applied in their hospitals.

REFERENCES

1. Ni YN, Luo J, Yu H, Wang YW, Hu YH, Liu D, Liang ZA (2017). Can body mass index predict clinical outcomes for patients with acute lung injury/acute respiratory distress syndrome? A meta-analysis. *Critical Care*, 21, 36.
2. National Institutes of Health (1998). Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults—the evidence report. *Obes Res.*, 6: 51S–209S.
3. World Health Organ Tech Rep Ser (2000). Obesity: preventing and managing the global epidemic. Report of a WHO consultation, 894:i-xii, 1–253.
4. Nasraway SA, Jr, Albert M, Donnelly AM, Ruthazer R, Shikora SA, Saltzman E (2006). Morbid obesity is an independent determinant of death among surgical critically ill patients. *Crit Care Med.*, 34(4):964–70.
5. Flegal KM, Graubard BI, Williamson DF, Gail MH (2005). Excess deaths associated with underweight, overweight, and obesity. *JAMA.*, 293(15):1861–7.
6. Pepper DJ, Sun J, Welsh J, Cui X, Suffredini AF, Eichacker PQ (2016). Increased body mass index and adjusted mortality in ICU patients with sepsis or septic shock: a systematic review and meta-analysis. *Crit Care*, 20(1):181.
7. Stang A (2010). Critical evaluation of the Newcastle-Ottawa scale for the assessment of the quality of nonrandomized studies in meta-analyses. *Eur J Epidemiol.*, 25(9):603–5.
8. Hammond K L (2013). Practical Issues in the Surgical Care of the Obese Patient. *The Ochsner Journal*, 13(2): 224–227.
9. O'Brien KS, Puhl RM, Latner JD, Mir AS, Hunter JA (2010). Reducing anti-fat prejudice in preservice health students: a randomized trial. *Obesity (Silver Spring)*, 18(11):2138–2144.
10. Wang Y, Beydoun MA, Liang L, Caballero B, Kumanyika SK (2008). Will all Americans become overweight or obese? Estimating the progression and cost of the US obesity epidemic. *Obesity (Silver Spring)*, 16(10):2323–30.