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Research Article

COMPARING THE FEASIBILITY AND RESULTS OF LAPAROSCOPIC GYNECOLOGICAL SURGERY BETWEEN OBESE AND OVERWEIGHT PEOPLE, NORMAL WEIGHT WOMEN AND UNDERWEIGHT WOMEN

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Aim: To look at achievability and careful result of laparoscopic gynecologic medical procedure between hefty, overweight, typical weight, and underweight women.

Methods: Four principle classes of gynecologic infection were recognized: uterine fibroids, kindhearted adnexal masses, endometriosis, and endometrial malignant growth (stage I). Our current research was conducted at Jinnah Hospital, Lahore from March 2019 to February 2020. For every classification patient were separated into 4 gatherings: underweight (BMI ,19.6 kg/m²), ordinary weight (BMI 19.6–25.8 kg/m²), overweight (BMI 26–28.8 kg/m²), and corpulent (BMIR30 kg/m²).

Results: The selected outcomes were the duration of the medical procedure, the rate of transformation of the laparotomy, the postoperative complexity and the duration of the emergency clinic. No measurable contrasts in sector information, clinical history and intraoperative findings were available between meetings. No transformation by laparotomy took place. With respect to the duration of a medical procedure, we found no evidence-based distinction between the BMI groups regarding generous infections, while pelvic lymphadenectomy in large patients with malignant endometrial growth had a significantly longer evidence-based duration than in the control group (122 6 47 min vs 65 7 25 min, p, .002). The rate of postoperative confusion was 0.02%: 4 cases of blood binding also, 1 case of hem peritoneum among myomectomies; 1 ureteral fistula during a medical procedure for pelvic endometriosis; and 1 case of postoperative lymphocele during collection of endometrial malignancies. No critical evidence-based distinctions were found in terms of medical clinic among the BMI groups in any of the disease classes. For each class, we conducted a survey to distinguish any conceivable risk other than BMI from the meticulous results.

Conclusion: Laparoscopic approach in the different utilizations of gynecologic medical procedure doesn't have all the earmarks of being essentially impacted by BMI regarding careful results, laparotomy change rate, intraoperative and postoperative inconveniences rate, and term of emergency clinic remain. The specialized challenges can be illuminated if gifted specialists and anesthetists are accessible.

Keywords: Laparoscopic Gynecological Surgery, Obese, Overweight People, Normal Weight Women, Underweight Women.

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INTRODUCTION:

Corpulence is characterized by an excessive accumulation of body fat. The regularly recognized estimation strategy is the weight list (BMI), which is obtained by separating weight in kilograms by height in square meters [1]. A BMI of less than 26 kg/m² is typical, a BMI between 26 kg/m² and 28.8 kg/m² is considered overweight, and a BMI of 30 kg/m² or more is characterized as corpulence. Tall patients are prone to other conditions, such as hypertension, stroke, cardiovascular disease, diabetes mellitus, respiratory impedence (e.g., resting apnea), back and joint problems, and certain tumors (endometrial, colorectal, and breast). In the nations created today, the level of overweight or corpulent population is on the rise [2]. The banality of corpulence has risen steadily over the past two or three years worldwide, and the National Center for Health Statistics reported in 1999 that 63% of adults in the United States were overweight and 27% were corpulent. Today, about 40 million people in the United States are overweight, and half of them are women [3]. The situation in Europe is similar [4]. In addition, given the high rate of comorbidities related to corpulence, it is recognized that weight is a significant risk factor for confusion after a medical procedure and that it rises the danger for diseases related to minor injuries in different types of conservative methodology. Physicians, especially those in the attentive subspecialties, are regularly confronted with the extraordinary clinical test of thinking about corpulent patients. The advent of the current laparoscopic medical procedure has provided the specialist with an accommodating device, making it conceivable to run more perplexing systems with negligible strategies. While some creators have considered weight as a family contraindication to usable laparoscopy, laparoscopic procedures may be particularly appropriate for the treatment of corpulent patients, as careful complexities are often identified in the impotent repair of injuries and diseases, especially when diabetes is available. In addition, these strategies can ensure faster recovery and shorter hospital stays than open strategies [5].

METHODOLOGY:

A case-control study was conducted on 503 selected women who underwent endoscopic strategies for gynecological diseases between March 2019 to

February 2020. Our current research was conducted at Jinnah Hospital, Lahore from March 2019 to February 2020. At the beginning of the examination, 4 main classifications of gynecological diseases were recognized: uterine myoma, friendly adnexal masses (with rejection of ovarian endometriosis), pelvic and ovarian endometriosis, and endometrial malignancy (stage I). For each classification, patients were separated at this stage into 4 groups according to the World Health Association's order of overweight: underweight (BMI < 18.5 kg/m²), typical weight (BMI 19.6-25.8 kg/m²), overweight (BMI 26-28.8 kg/m²), and corpulence (BMI ≥ 30 kg/m²). The typical weight group was considered a control group. Information was extracted from an extraordinary data set that included biological data, signs for a medical procedure, careful system, scope of the procedure, rate of laparotomy change, employable and postoperative complexities, readmissions to the clinic, and re-operation for a condition identified with previous surgery. The selected outcomes were the duration of the medical procedure, the rate of change of laparotomy method, intraoperative and postoperative inconveniences, and the extent of the remaining emergency clinic. Usable time was characterized as the extent of the entry point to the dressing situation. Due to endometrial malignancy, the time of pelvic lymphadenectomy and the time of laparoscopically assisted vaginal hysterectomy (LAVH) were recorded independently. Intraoperative entanglement was characterized as an internal, bladder, ureteral or vascular injury, assessed the R1 L blood disorder, the need for blood binding. The blood unhappiness was recovered in graduated compartments that were checked towards the end of a medical procedure. Postoperative discomfort was characterized by any adverse event occurring within 30 days of the application of the method. Febrile grayness was characterized by a temperature of 0.39 C within 48 hours after the medical procedure and requiring explicit anti-infectious treatment. The length of stay in the medical clinic was determined based on the time of admission until the time of discharge. Endometriosis was described by the American Society for Reproductive Medicine (ASRM) group. Furthermore, endometrial malignancy was arranged within the current organizational framework of the TNM.

Table 1:

Intraoperative findings of patients who underwent operative laparoscopy for benign adnexal mass

	BMI kg/m ²	BMI 18.5–24.9 kg/m ²	BMI 25–29.9 kg/m ²	BMI ≥ 30 kg/m ²	Overall
No.	6	101	48	21	176
Mean duration of surgery (min)	60 ± 30	70 ± 30	75 ± 33	73 ± 40	72 ± 30
Monolateral (n)	6	97	43	16	162
Mean diameter of principal mass	4.7 ± 2	5 ± 2.4	6 ± 2.2	5.3 ± 2.0	5.5 ± 2.3
Type of surgery					
Monolateral excision of cyst	0	53	18	11	82
Bilateral excision of cyst	2	3	1	1	7
Monolateral adnexectomy	4	17	12	2	35
Bilateral adnexectomy	0	28	17	7	52
Type of cyst					
Dermoid	2	29	19	8	58
Serosal	1	35	16	6	58
Mucinous	2	19	6	3	30
Atypical	1	15	7	3	26
Ovarian fibroid	0	3	0	1	4
Duration of hospital stay (h)	24 ± 1.6	25 ± 3.5	25 ± 3.5	24 ± 4	25 ± 3.5

RESULTS:

The attributes of the segment and the clinical and conservative clinical history of the patients under consideration are shown in Table 1. No measurable contrasts regarding these attributes are available between the groupings, with the exception of large patients treated for an adnexal mass which are more established for the reference group. In our arrangement, no laparotomy changes occurred and all operations were completed by the laparoscopy course. With respect to the medical procedure, we found no measurable contrast between the BMI group with respect to types of infections, whereas in the large patients with malignant endometrial growth, pelvic lymphadenectomy had a longer critical time than in the reference group (123 7 49 min vs. 66 6 23 min, *p*, .002). The actual rate of postoperative discomfort was 0.03% or 8 cases out of 503 patients: in the myoma class, we recorded 3 cases of blood binding and 1 case of hem peritoneum with 1 intervention to achieve hemostasis; in the pelvic endometriosis class, we recorded one ureteral fistula treated by the addition of a double J catheter, and finally in the endometrial malignancies group, we recorded 1 case of

postoperative lymphocele. No measurable contrast was found in terms of BMI rates in the BMI groups of the different disease classes. For each disease class, we conducted a specific survey to recognize any conceivable danger calculating conservative results other than BMI. Intraoperative information for patients who underwent laparoscopy for uterine myomas is shown in Table 2. Signs of a medical procedure were stomach discomfort or torment (n 6 43 [23%]), waist expansion (n 5 52 [27.8%]), menorrhagia (n 6 42 [23%]), infertility (n 5 14 [7.9%]), and multiple indications (n 6 38 [18%]). A positive relationship was also found between the duration of a medical procedure, the width of the major wound, the duration of the medical procedure, the weight of the main tumor, and finally between the duration of the medical procedure and the number of myomas (*p*, .06). We determined that the medical procedure continued for more than 106 minutes for a myoma with a width of 0.5 cm (OR 0.17, CI 2.2-7.7), a weight of 0.174 g (OR 7.6, CI 3.4-19) and a number of myomas of 0.2 (OR 3.8, CI 1.5-5.3). No relationship between the duration of a medical procedure and the corresponding surgical operations was found.

Table 2:

Intraoperative findings of patients who underwent operative laparoscopy for uterine nodosis

	BMI <18.5 kg/m ²	BMI 18.5–24.9 kg/m ²	BMI 25–29.9 kg/m ²	BMI ≥ 30 kg/m ²	Overall	<i>p</i> Value
No.	9	130	29	15	183	
Mean duration of surgery (min)	100 ± 47	103 ± 39	112 ± 40	80 ± 40	103 ± 40	>.1
Median (range) number of myomas	2 (1–6)	1 (1–10)	1 (1–8)	1 (1–2)	1 (1–10)	>.1
Mean weight of principal myoma (g)	215 ± 135	174 ± 150	166 ± 101	152 ± 70	172 ± 137	>.1
Mean diameter of principal myoma (cm)	5.9 ± 3	5.5 ± 1.7	6 ± 2.3	5 ± 1.7	5.5 ± 1.9	>.1
Concomitant procedures* (no.)	4	29	5	0	39	>.1
Duration of hospital stay (h)	32.2 ± 14	29 ± 4	28 ± 6.9	28 ± 4	27.8 ± 5.8	>.1
Complications (No.)	1	2	1	0	4	>.1

* Adhesiolysis, excision of peritoneal endometriosis.

Table 3:

Demographic characteristics, medical and surgical history of patients

	BMI <18.5 kg/m ²	BMI 18.5–24.9 kg/m ²	BMI 25–29.9 kg/m ²	BMI ≥30 kg/m ²	p Value
Uterine fibroids (n = 183)					
No.	9	130	29	15	
Age (y)	38 ± 3.3	37 ± 5.8	37 ± 5.8	38 ± 6.4	>.1
Previous surgery	35%	43%	35%	22%	>.1
Medical history*	18%	10%	22%	32%	>.1
Nulliparous	65%	60%	55%	58%	>.1
Benign adnexal mass (n = 176)					
No.	6	101	48	21	
Age (y)	44 ± 16	44 ± 14.3	46.7 ± 12.9	49.7 ± 13.8	
Previous surgery	33%	44%	44%	52%	
Medical history*	17%	24%	33%	48%	
Nulliparous	67%	45%	23%	29%	
Pelvic endometriosis (n = 110)					
No.	5	74	20	11	
Age (y)	31.4 ± 7	34 ± 5	35.8 ± 3.9	39 ± 5.6	.01
Previous surgery	40%	48%	40%	27%	>.1
Medical history*	20%	12%	25%	36.4 %	>.1
Nulliparous	80%	83%	70%	45%	>.1
Endometrial cancer (n = 34)					
No.		17	8	10	
Age (y)		60 ± 7	66 ± 4.3	63 ± 6.5	>.1
Previous surgery		29%	50%	60%	>.1
Medical history*		76%	75%	90%	>.1
Nulliparous		23.5%	37.5%	10%	

* Patients with hypertension, cardiovascular disease, or diabetes.

DISCUSSION:

Due to the increasing ubiquity of body size around the world, the rehearsal specialist must be aware of its effect on the clinical examination and pay close attention to it [6]. Being overweight is regularly considered a contraindication to laparoscopy in anesthesiology, especially in view of the pelvic medical procedure. Essentially, the insufflation of CO₂ into the peritoneal hole causes a cephalic displacement of the stomach, causing a decrease in the volume of the lungs (less utilitarian persistence limit), a decrease in the consistency of the aspiration, a widening of the opposition and the undulation of the ventilator perfusion, moreover, a widening of the inspiratory weight of the pinnacle [7]. Hence, patients undergoing laparoscopy are at risk of atelectasis and decreased blood vessel oxygenation. In addition, the use of sedation and mechanical ventilation weakens blood vessel oxygenation due to the advancement of intrapulmonary shunts and confusion between ventilation and perfusion, even in patients of ordinary weight. Lack of muscle tone and loss of muscle movement contribute to demolish this circumstance and cause a further decrease in the useful limit of contrast remains and cognitive status [8]. This decrease is more pronounced in large patients [4]. In addition, the Trendelenburg position, which is obligatory to acquire a large part of the pelvis, may cause a further decrease in the functional limit of

endurance due to a more articulated uprooting of the stomach. It also appears to cause a clinically significant decrease in preload and cardiac output. These physiological changes are generally experienced by sturdy women, while they can cause hemodynamic precariousness in patients with significant disease [9]. For this reason, the laparoscopic medical procedure has always been accepted as presenting a more serious danger of transformation by laparotomy in tall patients than in patients of normal weight, despite the fact that no investigation has studied this issue in a randomized and controlled manner [10].

CONCLUSION:

Despite the fact that our survey presents certain obstacles, such as its examination plan and the generally small number of patients treated for malignant endometrial growth, our results are consistent with those of other surveys now available: laparoscopy can also be considered a possible and safe conservative methodology for obese patients, and the specialized disorders described above can be understood if skilled specialists and anesthetists are available. Emphasize that laparoscopy is not only safe and convenient, but that it achieves similar results to the open method. In addition, in contrast to the open technique, the laparoscopic approach causes less employable confusion, a more limited stay in the

emergency room, faster recovery and less need for torment medicine. It should therefore be particularly suitable for obese patients, as they present a higher postoperative risk of atelectasis, pneumonia, deep venous apoplexy, aspiratory embolism, ileus and wound disease. A broad laparotomy methodology has also been shown to rise these hazards, causing a slower return to work, prolonged immobilization and longer stays in the clinic.

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