

ACCEPTANCE AND RELIANCE OF LAPAROSCOPIC SURGERY AMONG MOSUL CITY POPULATION

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Abstract

The study is designed to evaluate the confidence, reliance and the degree of acceptance of laparoscopic surgical procedures among Mosul city population after 15 years of work in this field of surgery.

This is a prospective data collection study. Participants were eight hundred persons, all of them from Mosul city with complete normal health at time of evaluation; all of them were above 18 years of age.

The main outcome measures: The persons involved were divided into 4 groups according to their literate and educational level, each group composed of 200 persons, the first group (literate medical personnel) composed of medical doctors of various specialties, the second group (literate non medical personnel) composed of persons who were graduated from various colleges, apart from medical one. The third group (partially literate personnel) included those who did not complete the secondary school. the fourth group (low literate personnel) included those who did not completed the primary school.

The questioners asked the following questions:

1- Did you know what laparoscopic surgery means? A special information score was used to evaluate the questioner knowledge. To those who answer yes for the first question and the information score was acceptable, the second question was:

2- Do you prefer this type of surgery to be used on you or on one of your first relative if feasible and needed?

3- If the answer for question 2 is yes, please tell us why.

4- If the answer for question 2 is no, please tell us why.

The data were collected and comparison was done among the groups.

All the medical persons were aware about laparoscopic surgery, 183 agreed to underwent such procedure if needed during the coming time, 160 of the second group knew what is laparoscopic surgery and 123 accepted to be used on them if needed, 118 of the third group knew what is laparoscopic surgery and 80 agreed to be used on them, while 85 of the fourth group had information about laparoscopic surgery but only 42 of them accepted it to be used on them if needed. Those who accepted laparoscopic surgery did so because they think that, it is more cosmetic, less painful and needs less hospitalization time, while those who refused it, did so because they afraid from dangerous instrument, the risk of complication and conversion.

In conclusion, laparoscopic surgery is a well known surgical procedure among population in Mosul city, it gained acceptance and confidence especially in literate persons, but it needs more verification for low literate population. Cosmetic, less hospitalization and less post operative pain are the stocks for acceptance while complications, conversion and untrusting instrument and surgeon are the reasons for refusal of laparoscopic surgery.

Introduction

The revolution of laparoscopic surgery was introduced in Mosul city in 1995^{1,2}. Since that time, a project of training programs were activated and advanced properly. Now more than 50

well qualified surgeons of various specialties are adequately trained for such operations, which included both diagnostic and therapeutic interventions.

Mosul city is the second city in Iraq regarding the number of population³. It contains 3 centers for laparoscopic surgery belong to the government, were more than 30 laparoscopic surgical procedures done per a week, also there are 2 private laparoscopic centers equipped with laparoscopic surgical facilities were more than 15 laparoscopic operations done per a week.

The aim of our study is to focus a light on the acceptance, confidence and trust of such surgery among population in our city and to evaluate our hard work after 15 years (1995-2010) in such field, this will help us as a laparoscopic surgeons to insure adequate health services and to put further steps in programming and training.

Persons and methods

The study included 800 persons, all of them were from Mosul city and above 18 years of age, they were in good health state at time of survey. The persons were divided into 4 groups according to their literate state and educational level, each group composed of 200 personals.

The first group (literate medical doctors) composed of graduated medical doctors of various specialties; data were collected from them at hospitals and medical faculty. The second group (literate non medical personals) composed of persons who were graduated from various colleges of Mosul University apart from medical one. The third group (partially literate personals) included those who did not complete the secondary school. The fourth group (low literate personals) included those who did not complete the primary school. The authors gained the information from the last three groups as they attended the hospitals or outpatient clinic or their privet clinic as a relative to their patients, as well as from workers in Mosul University.

The following questions were asked to all persons shared in this survey, without explaining to any, what laparoscopic surgery means, or giving any suggestions or ideas from the authors to change their answers.

1- Did you know what laparoscopic surgery means?

The following questions was used to evaluate the information of the person about laparoscopic surgery, each with a score, the questioner who collect more than 6 marks regarded as a candidate to answer the next questions, the score was not applied to the first group, since logically, all doctors should know what is laparoscopic surgery.

A- What is your information about laparoscopic surgery in short?

1- Using a camera for looking inside the abdomen. (2 marks).

2- Insufflations of gas in to the abdomen (2 marks).

3- Multiple small incisions rather than single big one. (2 marks)

4- Using instruments rather than hands. (2 marks)

B- From where you get the information?

1- From doctor (2 marks)

2- Medical news, via the TV or internet (1 mark).

3- From my friends or relative (1 mark).

To those who know enough information about laparoscopic surgery (scored more than 6), the next question was:

2- Do you prefer this type of surgery to be used on you or one of your first relative if feasible and needed?

3- If the answer for question 2 is yeas, please till us why. (Cosmetic, less painful, early return to work, less hospitalization, less complication)

4- If the answer for question 2 is no, please till us why (not trust the instrument, less expert surgeon, more complication, risk of conversion).

The answers for questions one and two for all persons were shown in table I.

Table I: The answers for questions one and two in number and percentage:

No. of group	Total no.	Know what is laparoscopic surgery	Not know what is laparoscopic surgery	Accept laparoscopic surgery	Refuse laparoscopic surgery
first	200	200(100%)	Zero (0%)	183(91.5%)	17(8.5%)
second	200	160(80%)	40(7.5%)	123(81.5%)	37(18.5%)
third	200	118(59%)	82(16.5%)	(68.5%) [^]	38(31.5%)
fourth	200	85(42.5%)	115(22.5%)	42(46%)	43(54%)
total	800	563(70.3%)	237(29.7%)	428(76%)	135(24%)

Those who accepted the use of laparoscopic surgery, answered the third question as shown in table II.

Table II: The answers for question 3 in number and percentage

No. of group	Number of persons	cosmetic	Less painful	Less hospitalization	Early return to work	Less complication
first	183 (91.5%)	170 (92.8%)	172 (94%)	168 (91%)	166 (90%)	150 (82%)
second	123 (81.5%)	108 (87.8%)	107 (87%)	103 (83.7%)	103 (83.7%)	100 (81.3%)
third	80 (68.5%)	70 (87.5%)	67 (90%)	70 (87.5%)	67 (83.7%)	63 (78.7%)
fourth	42 (46%)	30 (75%)	28 (70%)	35 (83.3%)	36 (85.7%)	31 (77.5%)

Those who refused laparoscopic surgery answered the fourth question as in table III.

Table III: The answers for question 4 in number and percentage

No of group	Number of persons	Not trust instrument	Less expert surgeon	More complication	Conversion
First	17(8.5%)	15(88%)	3(17.5%)	6(35%)	5(29%)
Second	37(18.5%)	20(54%)	6(16%)	12(32.4%)	12(32.4%)
Third	38(31.5%)	25(65.7%)	12(31.5%)	19(50.5%)	21(55%)
Fourth	43(54%)	28(65%)	24(55.8%)	23(53.4%)	23(53.4%)

Discussion

As the 20th century closed, the closed body cavity operation was started and involved most of the surgical procedures⁴. The aims are to achieve less painful, more cosmetic and cost effective operations with less hospitalization days and early return to work⁵, even so, laparoscopic surgery is still in need for continuous evaluation and the surgeon must take an active

rule in its design and progress⁶. The medical information in general become more broadcasted than before after the availability of internet, educational and medical TV channels services, but still not all people have interest to search for such information. Most of medical information gained from doctors when visited by patients seeking for help. In our society 88% of population of various educational levels knows the

simplest needed information about laparoscopic surgery, it was in 100% of first group and this is expected because they are medical doctors and 42.5% in low literate population which indicate a wide deferance of knowledge about this type of surgery at the extremes of educational levels, some people specially with low education level (group 3 and 4) have a strange information about laparoscopic surgery, some of them rise a doubt about complete removal of the gall bladder by laparoscopy or they think that the gall bladder removed from the mouth, or that the laparoscopic operation can be done without anesthesia, others cannot differentiate between laparoscopy and endoscopy. Actually, not all people accept this kind of surgery, in our study 183 (91.5%) of the first group find laparoscopy is interesting type of surgery, this was not the picture in the fourth group were only 42 (46%) of them trusted the procedure, this may be attributed to lack of enough medical information, less refinement, contemplation and lag of health knowledge. It's very true that the body look and perfection is so impotent to woman as well as to man even in a hidden area of the body, laparoscopy provide more cosmetic and smaller scar that can be accepted in almost all patient⁷. We find that, cosmetic reason is the main point for acceptance of laparoscopic surgery in the first, second and third group (92.8% and 87.8%, 87.5% respectively) and its still of concern, although with less percentage in the fourth group (75%), this may be attributed to that, patients with low socioeconomic and educational state in our society, either become shay to till about their appearance or they didn't cocosmetic as a very important item.

Although pain killers are available for postoperative period and can be given safely⁸, the laparoscopy proved to

cause less pain, and the patient who underwent such surgery needs less post operative pain killer regarding the dose and duration of use^{8,9}. In our study, the patient who accepted laparoscopic procedure for the reason that it causes less pain was 94% for the first group, 87% for the second, 90% for the third and 70% for the forth group. The less percentage in the forth group her can be explained in that, some people of low socioeconomic and low educated patient thinks that pain is an imposition for doing operation and it's the fate of being operated upon whatever the type of operation.

It's well known to everybody that admission of any member of the family to hospital causes a big burden and psychological upset with change in the usual pattern and sequence of family life. The laparoscopic procedures proved that it needs less post operative hospitalization and early return to home and people accept the laparoscopic procedure for this reason^{10,11}. In our study 91% of the first group, 83.7% of the second, 87.5% of the third and 83.3% of the fourth group accept laparoscopic procedure because it provides less hospitalization and early return to home. The same is applied when the family boss loss his or her job for a period of time specially if he or she works in an important, critical or sensitive position like doctors, officers and lawyers, or if the work is without health services support or insurance. Early return to work was so concerned in all groups, that is 90%, 83.7%, 83.7% and 85.5% of patients accepted laparoscopic procedure in the first, second, third and fourth group respectively.

One of the most important contraindication of laparoscopic surgery is patient refusal, this is mostly due to the paucity of information about such operation among people specially those with low education, on the other

hand some people still trust the classical way of management and afraid from new technique specially those which use complicated or unusual instrumentation like those used in laparoscopic surgery^{12,13}. In our study, 88% in the first group from those who refuse laparoscopic surgery did so because they didn't trusted sophisticated instruments, this high percentage in this group reflect the adequate knowledge of doctors about the procedures and its instrumentation, while 54% in the second, 65% in the third and 65% in the fourth group afraid of being operated by instruments of laparoscope because they believed that it is dangerous. Although most of laparoscopic surgeon in Mosul city reached a very good level of experience in such operation, but there is loss of contamination with abroad experience and there is a shortage in some instruments and tools which limits some laparoscopic procedures, as well as there is absence of team working and specialized anesthesiologist for laparoscopic operation. Some people still not trust laparoscopic surgery because they think that surgeons did not reached the optimum level of safety, this is applied more to the third and fourth group, where 17% of the first group and 16% of the second group not trust surgeon experience while 31% of the third and 55% of the fourth group do afraid from lack of surgeon experience, we can attribute this untrust in the way that poor people visit the general hospital without knowing the surgeons on duty, or who is going to do the operation for them specially in teaching hospitals. For this reason, patient who refuse laparoscopic surgery think that it may end with more complication, this thinking belt up by bad experience of such surgery which was done to their relative, neighbors or friends, adding to it, the risk of conversion^{14,15}. We, the laparoscopic

surgeon believe that conversion is not a complication, but a sound decision for safety¹⁶⁻¹⁸, actually this is not what patient believes¹⁸, 29% of first group, put conversion as a cause for refusal laparoscopic surgery because they are doctor minded, while other groups showed 32.4%, 55% and 53.4% for the second third and fourth groups respectively, which means, conversion is a problem at least at patient mind level.

Conclusion and recommendation

We found that laparoscopy as the surgery of future, it is well established in our city and most of the people know what it is and a good percentage of them accept and trust it and it gains popularity as an alternative to traditional surgery specially among literate and educated people, but the problem of refusal and apprehension are exist mostly in low literate people, this is attributed to low medical information and fear from any new or complicated procedure because of low cultural and scientific attention. We recommend:

- 1- Increase the efficacy, performance, and experience of laparoscopic surgeon by programmed training regimen and sharing the international laparoscopic conferences.
- 2- Frequent checking and monitoring of laparoscopic instruments and equipments and periodic changing them to more newer and perfect items.
- 3- The use of team working among laparoscopic surgeon to increase the success rate of operation.
- 4- Increase the medical, social and cultural comprehension of population, especially those with low education through visual and audutive scientific congresses and meeting.

- 5- Selection of patient and operation for laparoscopy, to decrease complication and decrease criticism.

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