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KNOWLEDGE OF COELIOSCOPY BY THE MOROCCAN GENERAL POPULATION (About 1000 peoples)

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ABSTRACT

Laparoscopic surgery has flourished in recent years in many surgical specialties: digestive, gynecological and urological, minimizing the mimicry of laparotomic gestures too aggressive, sometimes for pathologies so benign. In order to evaluate the knowledge, fears and quality of information of the Moroccan population with regard to laparoscopic surgery, a survey was carried out over a one-year period from 01/07/2005 to 30/01/06/2016 at the level of eight Moroccan regions.The results of our survey showed that the Moroccan population is inadequate in terms of laparoscopic surgery, risks and benefits. Also, many people have false information about the use of laser or carbon dioxide. In order for celiac surgery, a topical technique that is promoted to a definite future, to develop, this technique should not put patients at greater risk than those inherent in conventional surgery. This will be done by respecting the technical and safety rules that govern their practice and above all to inform the patient and therefore the general population about the technique, its progress, its complications and above all its advantages in order to sensitize them for easier access to care.

Keywords: Moroccan population- laparoscopy- indications- complications – laser.

INTRODUCTION

Laparoscopic surgery has become a common practice in surgery for several years, since its emergence over the past two decades, laparoscopy has become the approach of choice for the treatment of many digestive disorders [1].

The laparoscopic technique requires skills that are different from those required for performing

laparotomy surgery [2]. This discipline had gone from a simple examination to a pathway first.

The main objective of our survey, conducted among the Moroccan general population, was to take stock of the level of knowledge of this population, their fears, their accessibility and the quality of information on laparoscopic surgery. Also for the purpose of sensitizing and encouraging her to better know the laparoscopy and correct erroneous beliefs about this surgical technique.

MATERIAL AND METHODS

Our work is a survey that has been spread over a period of one year between 1/7/2015 and 30/6/2016, with people living in eight regions of Morocco.

Our sample was 1000 cases (1000 cases) with a direct approach to the general population.

RESULT AND DISCUSSION

One thousand people were invited to participate in the survey with a response rate of 100%. The questionnaires obtained were usable

In our study, the most common age group was between 20 and 40 years of age, found in 593 (59.3%) respondents, a female predominance was noted with a sex ratio of 0.95.

The respondents were spread over eight Moroccan regions, dominated by the Casablanca-Settatou region 420 (42%) were questioned, followed by the Rabat-Salé-Kenitra region where 160 (16%) people were interviewed.

The occupation of those surveyed was dominated by health professionals found in 282 (28.2%) persons, 768 (76.8%) respondents were aware of laparoscopy, 570 (74.2%) of whom were from urban areas, 560 (73%) people preferred to be operated by laparoscopy.

While for 328 (42.7%) people laparoscopy was examined by laser, 710 (92.4%) people knew cholecystectomy as an indication for laparoscopic surgery, 225 (29.3%) had attached the contraindication to the procedure. Obesity and 314 (54.7%) respondents who claimed the aesthetic benefit of laparoscopy were female.

The results of our survey showed a deficiency among the Moroccan population in terms of knowledge of the technique of laparoscopic surgery, risks and benefits. Also, many people have false information about the use of laser or carbon dioxide.

Discussion

1- Gneral Data:

Our study was the first in the framework of an exploration of knowledge about laparoscopy by the Moroccan general population. Indeed, and to our knowledge, there was no similar study conducted at the national level before except a study done in the gynecology department of IBN ROCHD CHU in Casablanca [3] which included a smaller sample than ours and studies in patients who had laparoscopic surgery [4,5,6,7, 8], while our work did not target a particular population.

Interviewees were randomly selected and we achieved a 100% response rate.

Throughout our discussion, we will discuss our results in relation to the study performed in the gynecology department or failing that in relation to the theoretical data of the literature.

The 1000 questionnaires collected during our study provide an important place for our sample to

explore the knowledge of the Moroccan population about laparoscopy.

2- The Data On The Celioscopy:

a. DEFINITION OF THE CELIOCHIRURGY:

Laparoscopy appeared in 1901 by GEORGE KELLING [9]. It is a technique of surgical exploration of the abdominal cavity called minimally invasive surgery that uses small incisions previously made by the surgeon to observe and intervene inside the body of the patient, it is a technique which consists in operating in the abdominal cavity without achieving a wide parietal opening unlike laparotomy. [10]

The vision of the operative field is performed on a screen thanks to a fine optic (or endoscope) passed through the wall and connected to a light source and a camera, laparoscopy requires the insufflation of gas in the peritoneal cavity so to create a workspace that is called pneumoperitoneum. [10]

The gestures are made using a specific instrumentation also passed in transparietal by trocars generally measuring between 5 and 10mm in diameter. [11]

In our study, the majority of interviewees were familiar with laparoscopic surgery, which is 768 (76.8%). A total of 710 (92.4%) of them knew it was a surgical procedure.

The results of our survey are different from those of the gynecology department study [3] where only 45 (42.1%) women surveyed knew laparoscopy for a total of 107 women, as well as 95 (88.8%) women did not know that laparoscopy is a surgical procedure compared with 12 (11.2%) women who knew that laparoscopy is surgery.

Regarding the perception of laparoscopy 60 (56%) women believed that laparoscopy is an examination of the abdomen or pelvis by laser and x-rays, 20 (18.6%) of them considered it as an examination by optics and 27 (25.4%) of women approved camera use in this technique.

Any laparoscopic surgery must be performed in a surgical setting. The practice of laparoscopic surgery requires an experienced team, trained and working in a surgical environment suitable for this surgery, with well-adapted and well-maintained instruments.

The operating room dedicated to laparoscopic surgery requires a particular organization relating to the specificities of the technique, in particular the cumbersome environment but important by its implication in the quality of the surgical act [13].

b. ANESTHESIA IN CELIOSCOPY:

The ideal anesthetic technique for laparoscopic surgery must ensure patient comfort, obtain optimal operating conditions, maintain stable cardiovascular and respiratory functions, at least lead to nausea and vomiting with good pain relief for rapid postoperative recovery [14].].

The recent use of regional anesthesia in this case epidural has emerged as a safe technique for pelvic surgery, with only occasional occasional complications reported [15], the effectiveness of the epidural technique is enhanced by the use of adjuvants with local anesthetics [16,17,18].

Our outcome with laparoscopic anesthesia was different from that of the gynecology department [3] where about 64 (59.8%) women said that the anesthetic method in laparoscopic surgery is general anesthesia versus 43 (40.2%).) women thought it was under locoregional.

c. SURGICAL TECHNIQUES:

Currently, most or almost all cholecystectomies are performed by laparoscopy [19].

This technique was initially described with four trocars [20], then she experienced some innovations in order to reduce the length of hospital stay, postoperative pain, recovery time and improve cosmetic results. However many procedures have been described, in the 1990s, there was the 3-trocars cholecystectomy subsequently micro-laparoscopy using instruments 2 times finer in order to reduce the size of the incisions [23], also the reduction the number of incisions by single trocar laparoscopy [24] to further reduce the scarring ransom through a single site through which optical trocars and operators are installed.

Thus, a new surgical approach has been developed, which is trans-orificial endoscopic surgery [25], which has allowed various interventions to be performed through the vagina, stomach or anus [26] such as transgastic cholecystectomy [27], cholecystectomietransvaginal [28], transvaginal nephrectomy [29] and transanal rectal resection [30].

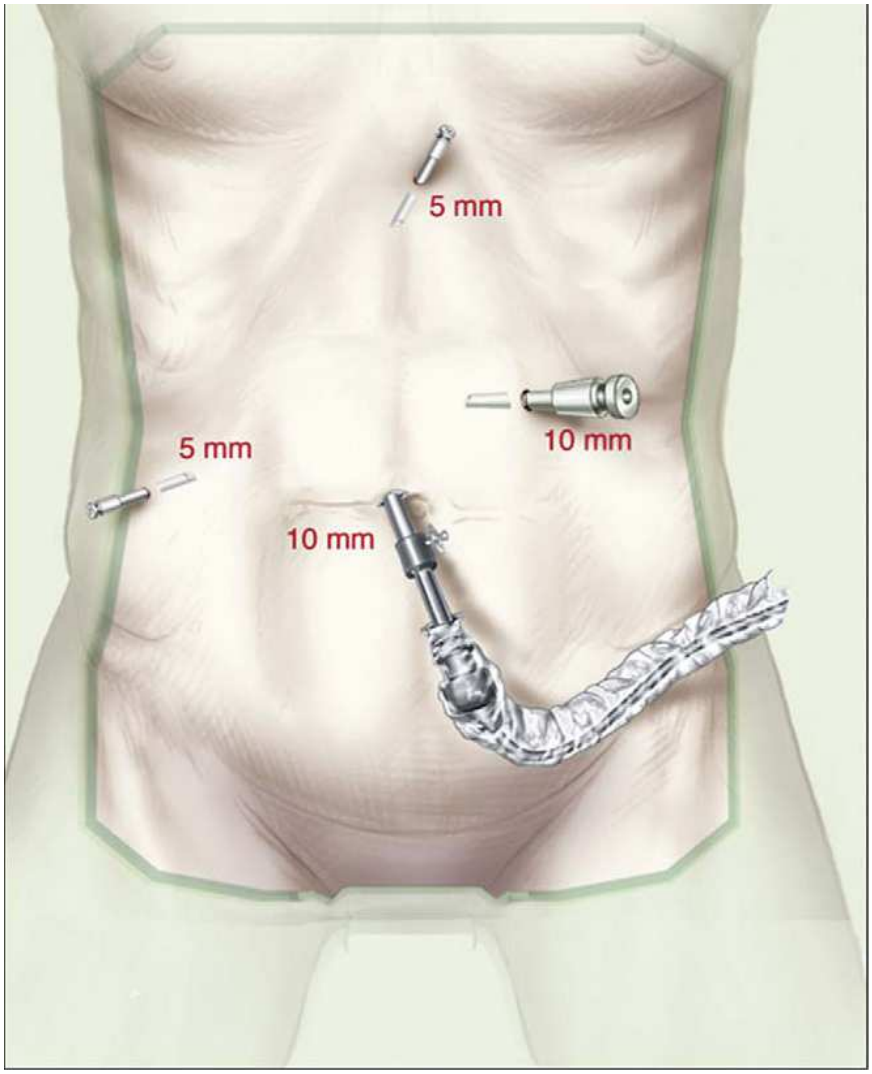

Figure 1: Placement of 4 trocars in laparoscopic cholecystectomy [5]

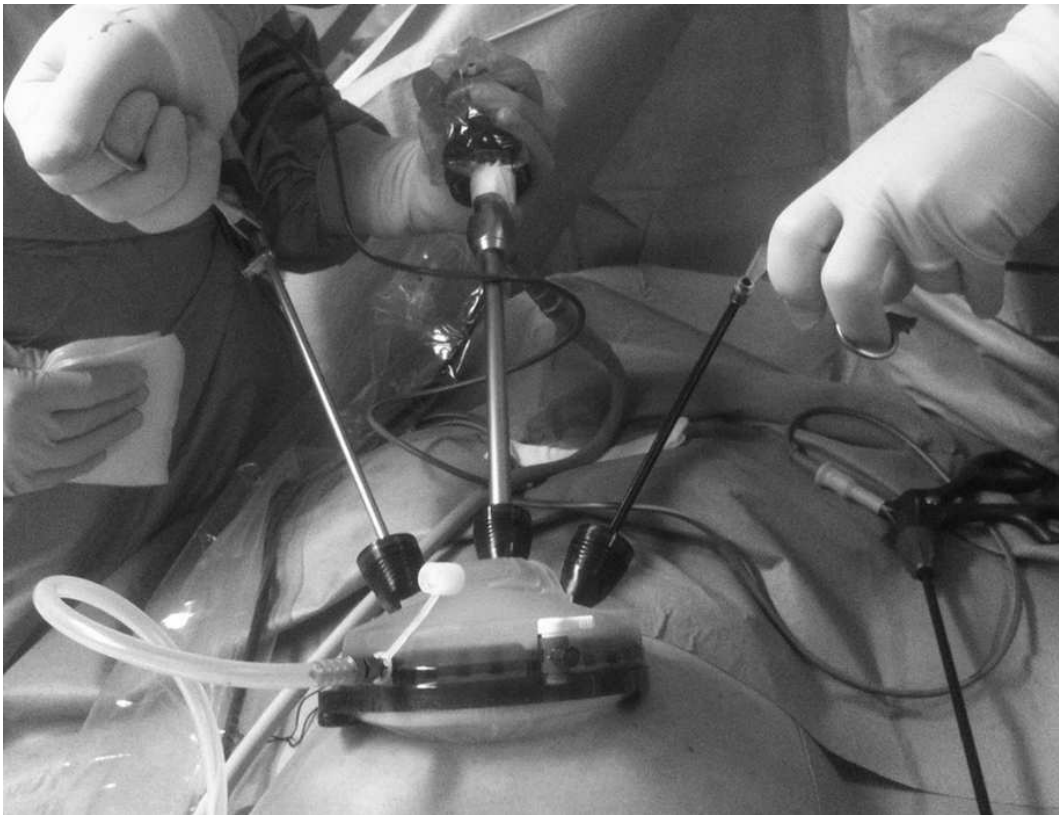

Figure 2: Single trocar laparoscopy [24].

d. INDICATIONS OF THE CELIOSCOPY:

The indications for laparoscopic surgery remain very wide. In our survey, 710 (92.4%) respondents were aware of cholecystectomy as the main indication for laparoscopic surgery. Appendicectomy was noted in 526 (68.4%) people. Almost 200 (27%) people mentioned the role of laparoscopic surgery in the treatment of hernia or bowel obstruction.

Other indications included ectopic pregnancy, nephrectomy, ovarian cyst, colon cancer, gastric ulcer, splenectomy, adnexectomy, myomectomy, abdominopelvic tumor, endometriosis and renal calculi. .

e. THE RISKS OF THE PATH FIRST IN CELIOSCOPY:

For years, laparoscopy has been the preferred approach for laparotomy for many therapeutic procedures performed in the abdominal cavity, but as with all surgical procedures, it entails risks and is prone to complications.

In our study 431 (56.1%) respondents knew that there are risks related to laparoscopy especially the risk of bleeding by vascular wound known by 197 (25.6%) respondents, the risk of infection by 105 (13.6%) people, the risk of air embolism by 68 (8.9%) people and abdominal body wounds by 158 (20.6%) people, 190 (24.7%) people felt that he there is no risk during laparoscopy and 147 (19.2%) people had no information.

Our results are different from those of the gynecology department [3] where 20 (18.6%) women interviewed knew that there were risks related to laparoscopy versus 87 (81.4%) did not know that there are risks to laparoscopy. laparoscopy.

The risk of mortality by laparoscopy is very low, in the study by Pessaux et al. [5] made for patients operated for cholecystectomy no case of mortality was observed, according to the study of Ludwig et al [137], the mortality rate is 9%. So PS Diop et al [32], reported a postoperative mortality rate of 2.38%.

The risk of biliary wound during cholecystectomy was described as increased with the advent of laparoscopy, at the end of the 1980s, the frequency of biliary wounds during a cholecystectomy was approximately 0.15% [33].], this rate decreased to stabilize between 0.1% and 0.9% [34].

Gallbladder perforation is a frequently observed incident in laparoscopy and it does not influence the outcome of cholecystectomy if the peritoneal cavity and the sub-hepatic regions have been well irrigated and finally aspirated for intervention [35], in the study by Bray et al. 18.2% had perforation of the gallbladder during dissection [5], the rate is lower than that of Fitzgibbons et al. Who reported a perforation rate of the gallbladder of 30% [5].

Van der Voort et al. Reported that the incidence of gastrointestinal lesions induced by laparoscopy was 0.13% and intestinal perforation 0.22%, the small intestine was most frequently injured 55.8%, followed by the large intestine 38, 6% and stomach 3.9% [35].

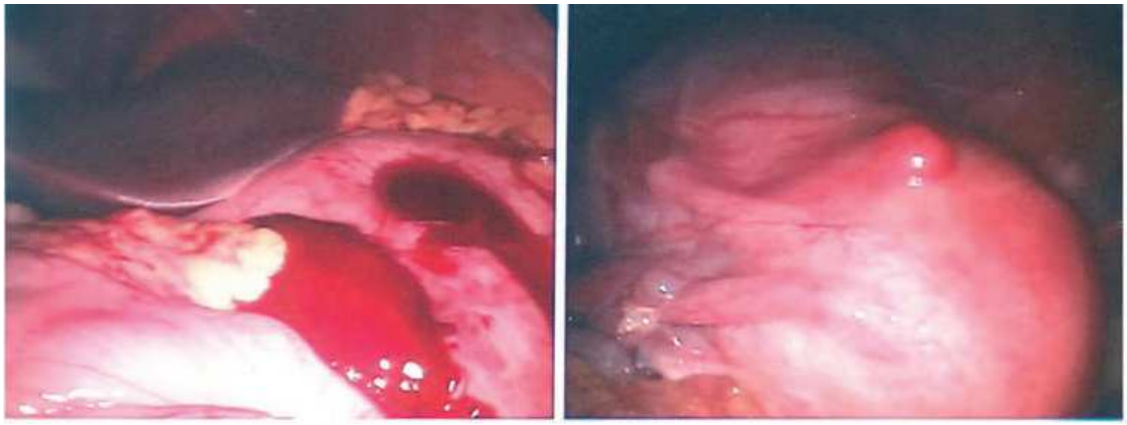

Figure3: Showing a stomach injury after the introduction of the first trocar [12]

Bladder wounds account for 2-6% of visceral wounds occurring during trocar placement, on 31532 laparoscopies, Jansen et al. Report 2 cases of bladder wound a prevalence of 0.06 per 1000 [21]. Wu et al. Report 13 bladder wounds on 4107 laparoscopies or 0.30% [21].

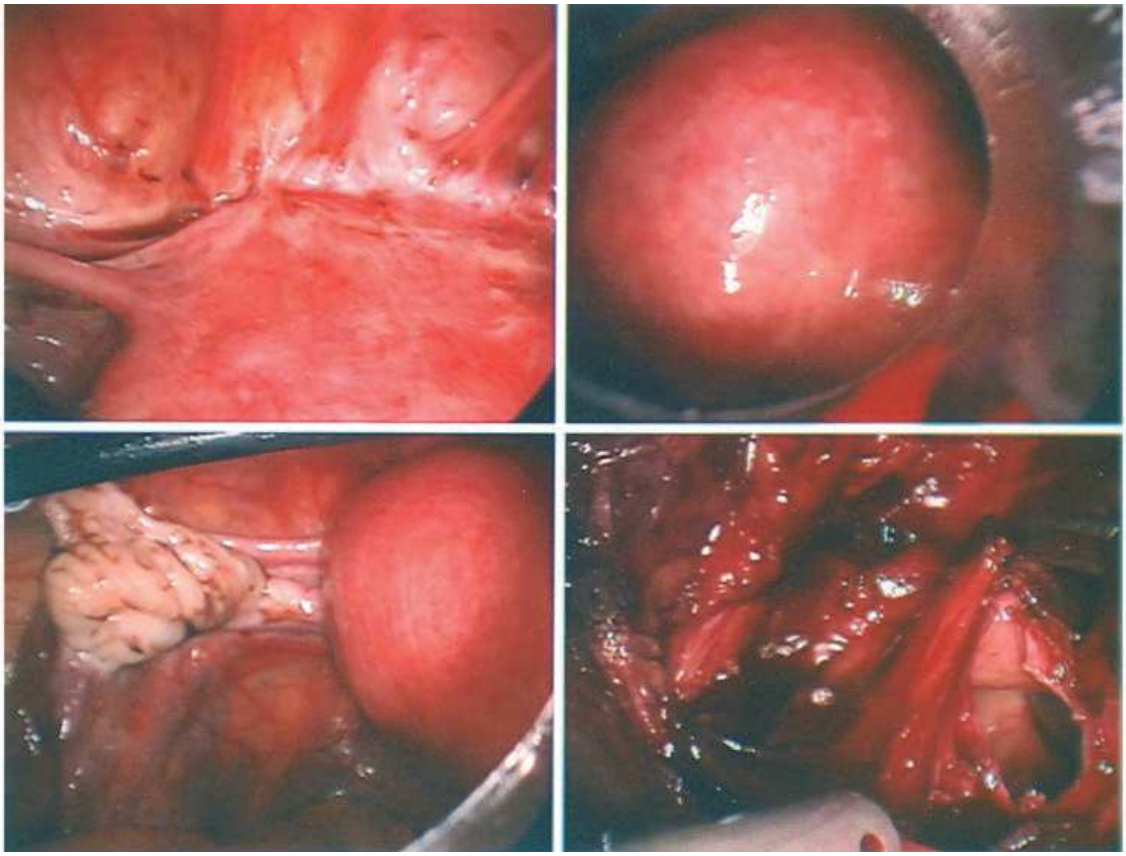

Figure 4: Showing a bladder lesion detected by direct visualization of the bladder mucosa [12]

f. COELIOSCOPIC CONVERSION IN LAPAROTOMY:

It is the safety net of laparoscopic surgery, it places the operator in more conventional conditions, especially in case of perioperative difficulty, the conversion to laparotomy, should not be considered as a failure, on the other hand it must be fast before the occurrence of a serious complication [36].

In our study 667 (86.8%) respondents knew that there is a possibility of conversion to laparotomy, which is different in the study of the gynecology department [3] where 99 (92.6%) women were unaware of the possibility of conversion during laparoscopy and 8 (7.4%) women knew that one could convert to laparotomy.

According to a retrospective study involving patients undergoing laparoscopic surgery for acute gallstone cholecystitis [6], the conversion rate was 9.86%. The predictive factors for conversion were: male sex (p = 0.004%), diabetes (p = 0.014%), the duration of acute symptomatology greater than 72 hours (p = 0.06%) and the thickening of the vesicular wall greater than 5 mm (p = 0.034%).

g. Legal Medical Aspects of Laparoscopic Surgery: [3]

The daily practice of laparoscopic procedures is still a source of many disputes. The whole problem for the expert doctor is to define whether there has been a lack of indication, technique or supervision. Even in the absence of fault, the discussion of the therapeutic accident can be difficult. The fundamental problem is to define where the risk ends and where the fault begins.

Responsibility in this area adds to the classic obligation of means, the need for specific team competence and effective quality of material [22].

h. CONTRACTS INDICATIONS:

Since its appearance, the contraindications for laparoscopic surgery have been reduced dramatically.

Acute intracranial hypertension and acute angle-closure glaucoma are a contraindication to laparoscopic surgery.

Patients with cardiac or respiratory disease should be evaluated preoperatively, taking into account the specific hemodynamic conditions imposed by laparoscopic surgery. Coronary insufficiency or stabilized heart failure is not a priori a contraindication to laparoscopic surgery.

Age is not a contraindication to laparoscopy. This is the reference technique in the general population, by the way; today has become the gold standard for the elderly population [10].

i. THE ADVANTAGES OF THE CELIOSCOPY:

Laparoscopic surgery has become a popular technique

in recent decades, which has several advantages over laparotomy, among these advantages there is the use of small incisions allowing a good aesthetic result, the decrease of intraoperative bleeding, the reduction of postoperative pain and the decrease in consumption. analgesic and per and postoperative complications, reducing the duration of hospital stay, faster recovery [37], early resumption of transit, physical and work activity, and lower costs of care [10]. Laparoscopy also allows the prevention of peritoneal adhesions, infection of the wall, ileus and the risk of postoperative herniation [38].

Our study is not different to that of the gynecology department [3] in terms of the aesthetic role that was cited by 64 (59.8%) women, that of less surgical risks per 60 (56.1%) women, the advantage of having simple operative follow-up by 43 (40.8%) women, however no woman knew the advantage of the reduction of the hospital stay.

In the Brooks study [39], the recovery time for physical activity was 2.3 weeks for the laparoscopy group and 10.3 weeks for the open surgical group.

Our study was not different from that conducted by Muhammad Salman Rafiq et al [4]. where females preferred laparoscopy with a score of 9/10 compared with laparotomy who had a score of 7.7, the cosmetic advantage was dominated mainly by women with a score of 8.9 for laparoscopy and of 5.3 for laparotomy, people over 40 years of age preferred laparotomy more with a score of 9.6 / 10 compared with laparoscopy the score was 8.4. As patients living in rural areas preferred laparotomy more than local beliefs in which laparoscopy is called laser surgery, which is an abuse of language where the laser is not used [4].

j. LACOELIOSCOPY 3D:

3D laparoscopy is one of the advances in current surgery. It is an intermediate technology between conventional laparoscopy and robotic surgery [40] based on the 3D column that allows the realization of high-tech interventions with a precision of the performed gesture. 3D laparoscopy gives the surgical procedure even more precision, speed and efficiency. So many benefits for the patient [41] and more comfort for the surgeon and therefore more safety for the patient.

k. ROBOTIC SURGERY OR TELEMANIPULATION-ASSISTED HELICOSCOPY:

The use of the robot in surgery is gradually gaining ground since its appearance in the early 2000s [42].

Robotic assistance is a new tool to help laparoscopy, it is a technological complement to facilitate the laparoscopic procedure using a robot tool. Its indications are broader, it is intended for difficult operations by conventional laparoscopy [43].

CONCLUSION

Laparoscopic surgery marked an evolutionary turning point in the history of surgery. The knowledge of the general Moroccan population regarding laparoscopic surgery is still incomplete in terms of surgical technique, risks and benefits.

More appropriate training of this surgery in university hospitals appears to be the first step to improve the knowledge of the general population, which remains a responsibility of treating physicians and paramedical personnel. Also the media, by their impact on the population, can play an important role in this subject.

Conflicts of interest

The authors do not declare any conflict of interest.

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