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## Research Article

### SINGLE ACCESSED GALLBLADDER SURGERY

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#### ABSTRACT

**Introduction;** Single access site (single site or single port) surgery has the main purpose of minimizing the number of skin incisions, maintaining a similar ergonomics to traditional surgery, and providing a better outcome to the patient. Reducing both the number and length of skin incisions

**Materials and Methods:** From January 2017 to August 2017 at the G. Rodolico Polyclinic of the University of Catania, consulted on the company's database were subjected to treatment of colchicine calcification n 139 patients of these n 88 females en 51 of Male with an average age of 45 years. Of these patients n 113 were subjected to surgical treatment with VLC, another group of n 20 patients undergoing open cholecystectomy the remaining n 6 cases were given in symptomatic regression and awaiting an evolution of the disease that would persuade patients to consent To the proposed treatment.

**Results** The aesthetic result is excellent and the postoperative course is virtually overlapping with interventions performed with classical laparoscopy, so the patient can get up immediately,

**Discussion** Single-laparoscopic surgery, although being improved, has been applied in our experience to various types of intestine: the most common are cholecystitis cholecystectomy, appendectomy and some types of gynecological intestine such as cyst removal ovary.

**Conclusion** Laparoscopy with single engraving can be potentially used in all fields suitable for traditional laparoscopic surgery.

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#### INTRODUCTION

Surgery with single access (single site or single port) has the main purpose of minimizing the number of skin incisions, maintaining a similar ergonomics to traditional surgery, and providing a better outcome to the patient. Reducing both the number and length of skin incisions. Single-editing is a modification to laparoscopic technique, which has now become a well-established technique in many types of abdominal interventions, including cholecystectomy, and which has been a major surgical revolution because it has brought enormous benefits to the patient due to both a recovery Almost immediately after open surgery with the possibility of resuming the supply from the day after surgery, suggesting that after the mini-invasive surgery the pain was further reduced, faster recovery and better cosmetics. An advantage that has nevertheless been achieved by laparoscopic surgery has been aesthetic because small engravings are obviously less visible

than classic engraving, which is still often still needed. (1, 2) Single-laparoscopic laparoscopic surgery has also sought the only aesthetic intent, that is to use the navel as a natural scar in which to hide the incision being made and from which laparoscopic instruments are introduced through certain types Of particular ports produced by different industries for this purpose The transition from multiple access surgery to single-site laparoscopy was difficult due to the severe loss of ergonomics, the presence of an unstable platform, a long learning curve, and the lack of Dedicated tools. In fact, laparoscopic cholecystectomy with single incision is much more challenging than multi-access laparoscopic cholecystectomy. This difficulty is related to the collision of the instruments between them if straight instruments are used or the need to cross and reverse the movement of hands: the right hand to move the instrument seen in the abdominal cavity to the right works on the left handpiece and vice versa . The single site robotic platform was introduced in December 2011

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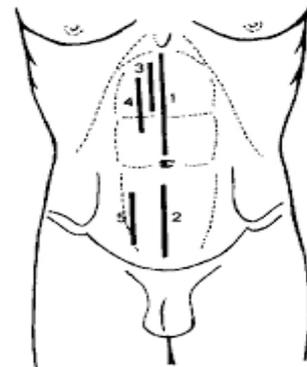
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as an alternative to multi-robot robotic surgery with the intent to overcome the drawbacks that characterize single port laparoscopy. This robotic platform has tackled the collision problem of tools by developing a series of specific tools. The set consists of a multi channel canal gel for four cannulae and an insufflation valve. Right access to optics, two curved cannulas serve as access to robotic instruments, a straight cannula for laparoscopic tools handled by the operator at the operating table; All these instruments pass through a single engraving that is practiced at the navel level. (3) Robotic tools are flexible to easily cross the curved cannulas. In this way, the instruments, crossing at the entrance point (abdominal wall) in the abdomen, are far enough apart from each other to avoid conflicts. In addition, system design minimizes collisions of the instruments inside the camera as the three instruments are not parallel. The robot software allows a virtual inversion of the controls and the instruments allowing the surgeon to perform the omolateral movements while acting on the counterpart instrument, ensuring extreme naturalness of the surgical operation. At present, Single Site Robotic Surgery is applied in General Surgery, especially for surgery on gallbladder; The new Single Site prototype will allow, as soon as commercially, extended this technique to other interventions such as those on the colon and rectum. However, this technique, which is still in the process of being improved, is particularly interesting in young women as the evolution of those attempts to perform surgery without visible scars. The purpose of the work is to illustrate an evaluation study for a Unique engraving in cholecystectomy as an alternative to the umbilical cord called "modified paraverte" Single Site used in both open and laparoscopic. To achieve a good aesthetic result.

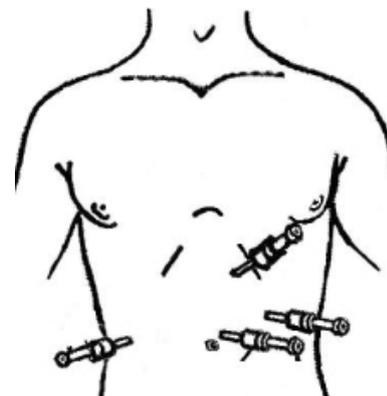
## MATERIALS AND METHODS

From January 2017 to August 2017 at the Polyclinic G. Rodolico of the University of Catania, the company's database was subjected to treatment of Calculus of gallbladder n 139 patients of these n. 88 male and female 51 with an average age of 45 years. Of these patients n 113 were subjected to surgical treatment with VLC, another group of n 20 patients undergoing open cholecystectomy The remaining n 6 cases were given in symptomatic regression and awaiting an evolution of the disease that would persuade patients to consent To the proposed treatment. The symptomatology in the observed patients was characterized by episodes of biliary yeast colic, nausea, vomiting and diarrhea, in 42 cases (30%) there was calculus common bile duct, associated colitis with swelling and fever (39 ° C). Our team, Who uses laparoscopy with single incision for both appendicitis and gallbladder calculations, has since 2010 adopted SILS as the preferred choice for bariatric surgery and cholecystectomy. In particular, our experience of the last eight Months in which there was a greater demand for this surgical procedure so that 13 cases were treated with a VLC in the absence of jaundice and calculus of common bile duct and in n 10 cases an open surgery was performed through a single incision Before the median ds (3 cm). This last procedure was carried out for the presence of previous episodes of cholecystitis that had resulted in an increase in wall thickness of the gallbladder with adherence in a young patient. The new technology minimizes the aesthetic impact of the intervention. The operative access point through the navel, however, is burdened by the presence of laparocele after

pregnancy. The need felt by young patients not to undergo a re-intervention with additional unacceptable scars has required the solution to find a new Surgical access site. The choice of the surgical access paths that are shown in tabs 1, 2



Tab 1 n 3 before the median area incision ds



Tab 2 multi side engraving

Was determined by the analysis of the results obtained by Gilbert *et al* (4.5). Anesthesia is general as for classical laparoscopy. A vertical incision is made in the before the median area of about 2 -3 cm (tab1 -3) or in the umbilical area and the muscle fascia opens so that the device (port) positioning allows the introduction of laparoscopic instruments Some of which are specially made for this technique. The surgery is then carried out in laparoscopy with analogous surgical technique. The use of dedicated instruments such as twisted and optic instruments with swivel tip facilitates the intervention. At the end, the operative part, such as the gallbladder, the appendix, the ovary cyst, the intestinal tract, or the other, sutures the muscle fascia. Finally, an aesthetic engraving or before the median incision suture is performed (even in open) or umbilical so that the scar at the end of the surgery remains completely clean and after one month nothing is seen again. Fig 1,2

## RESULTS

In treated cases The aesthetic result is excellent and the postoperative course is virtually overlapping with interventions performed with classical laparoscopy, so the patient can get up immediately, discharge after about two days for cholecystectomy, two or three days for appendectomy, The pain is minimal and in any case well controlled by the modest use of normal analgesics employed after these interventions.



Fig 1 aspect of umbilical scar.



Fig 2 aspect of before the median incision

However, discussions are in the favor and contrary to this technique for the risk of postoperative laparocoele being increased for the need to open about 2-3 cm of the muscle band, although this has not been demonstrated when it is carefully closed this parietal band defect. In our experience for the prevention of laparocoele we have applied a pre-peritoneal site to a collagen matrix patch with the absence of laparocoele. As far as postoperative infections are overlapping with classical laparoscopy, The operating times for the gall bladder, the appendix and the removal of ovarian cysts is generally overlapping With paramedical incision as an alternative to the proposed navel, we have obtained a pleasant aesthetic judgment from our younger patients, as well as obtaining the prevention of laparocoele In patients anticipating future pregnancies.

## DISCUSSION

Single-laparoscopic surgery, while being undergoing improvement, has been applied in our experience to various types of intensity: the most common are cholecystitis cholecystectomy, appendectomy and some types of gynecological intestine such as ovarian cyst removal. Other interventions are considered more experimental such as removal of intestinal tracts (colic or small bowel resections), removal of small surface lesions of the liver, gastrectomy for severe obesity (6,7,8,9). Performing this type of intervention should be considered with great care since not all patients can currently be subjected to this technique. In addition to all laparoscopic interventions, traditional laparoscopic conversion may be necessary with three or four "holes" or even laparotomy surgery, with abdominal incision and this choice during surgery should be considered as a necessity in the interest of Patient for

his safety. In our illustrated experience, the use of collagen patch in pre peritoneal site is critical to our prevention in the laparocoele formation. (10,11,12,13) Single - engraving surgery is a new technique that should be considered as the technique to be applied in all cases in the near future and represents a viable alternative to performing some interventions such as cholecystectomy, Appendectomy, some gynecological interventions in types of patients who require not to see the surgical scar after surgery. Therefore, this technique should be considered as one of the possibilities for improvement and can be practiced in centers where advanced laparoscopy is carried out and where there is a belief that this can be a viable alternative in those who require special attention to the aesthetic aspect, Taking into account, however, that the patient's safety must never be compromised. Like all surgery, this technique is not without risk but in reliable hands has proven to be safe until now (14,15,16,17) The abdominal surgery with single scar is the natural evolution of laparoscopic surgery. Indeed, if the latter has allowed to significantly reduce body assault, limiting access to the abdominal cavity to "some" small scar, the fact that it can pass all the tools needed to intervene through a single engraving of a couple of Centimeters reduces this aggression to a minimum. (18,19,20,21).

## CONCLUSIONS

The single incision laparoscopy can be used in virtually all fields suitable to traditional laparoscopic surgery. In addition to bariatric surgery, it is already widely used in Europe and the United States for a wide range of abdominal surgery such as cholecystectomy, prostatectomy and interventions of colorectal cancer surgery. In our daily practice we have observed that those undergoing an intervention is strongly influenced by scar discomfort For this reason, a solution that does not leave any traces on the body and therefore no visible signs of surgery, is a possibility for appealing patient and improves the mood even in post-operative phase, reducing recovery times to the active life. "with the SILS the surgeon inserts the tools, which have a diameter of less than the standard ones for laparoscopy and are more articulated And flexible. From this point onwards, the operation is quite the same as the classic laparoscopic you can operate both the obese making a gastric banding, gastric bypass surgery that a biliary-pancreatic diversion. the advantages of the SILS technique are not a few: "Every cut can be a source of bleeding, hernias, infections: reduce the number then it decreases possible complications -. (22,23,24,25) The hospitalization lasts just two days, against four to five of laparoscopic interventions. Above all, there is no visible visible scar. One item that many patients can make a difference is the site of surgical access the way before the median is preferred in biliary tract surgery because it represented a viable alternative to umbilical via addition to reducing the prevention of incisional hernias in young women An intervention Leaving no trace is better tolerated: the integrity of your body is important to everyone.

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