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A Proposal for an Evidence-Based Patients' Selection in Single Incision Laparoscopic Appendectomy

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Dear Editor,

Single incision laparoscopic appendectomy (SILA) is gaining interest in the surgical community, as the procedure is possibly easier than single incision laparoscopic cholecystectomy (SILC), without the potential boost of iatrogenic injuries which might characterize the initial series and the learning curve (1). Anyway, even the rate of overall morbidity for SILA might be higher than that of classical laparoscopic appendectomy (LA) (2). These numbers force to restrict the application of SILA to highly selected patients in which the benefits of a single access overweight the possible disadvantages in terms of morbidity. Clinical evidence and consensus development conferences have stated, so far, Grade A recommendation for LA only in pre-menopausal women, and its application in complicated appendicitis is still debated (3). Different devices have been approved for the use in single-incision surgery, but the cheaper and effective seems to be the "glove-port" (4). The obvious lack of triangulation is a minor problem in a mobile organ like the appendix is, but it can be bypassed with the use of a suspension for the appendix (trans-parietal stitches or supplemental miniport) or with flexible and angulated instruments. Although most of the procedures can be completed with a standard LA instrumentation, it surely implies a learning curve for the surgeon, who can be forced to a new cross-handed or left-handed dissection and has to deal with an annoying conflict between hands and stalks: this issue is ameliorated with the use of 5 mm-30 degrees cameras, which, although, carry a slight minor quality of the intraoperative vision, and (like in needlescopy) might compromise the result in complicated cases (5). On the basis of these considerations founded on the existing evidence, in our surgical unit we established strict criteria of inclusion in scheduling single port-appendectomy. This protocol has been started as LA has become the rule

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in our practice, and every on-call surgeon is able to perform the operation; moreover we adopt, since 2004, an "all-comers" policy for LA in appendicitis, and every patient (for which laparoscopy is not contraindicated) undergoes an exploratory laparoscopy and, when feasible, a laparoscopic appendectomy. Candidates for SILA must have the maximum advantage from the laparoscopic approach (when compared to open access). Thus we admit only pre-menopausal women who are determined, after correct and complete information, to receive the cosmetic advantages of an "invisible scar surgery". After an open umbilical skin access we put a 10/12 mm trocar inside and perform an explorative laparoscopy. Whenever in the presence of a non-complicated appendicitis (no abscess, gangrene, perforation or diffuse peritonitis) we extract the trocar, widen the facial midline incision to 2-2.5 cm and prepare a single access surgery with the use of a glove-port *(Figure 1)*. This method permits to contain the cost of SILA to less than 50 euro more than that of a standard LA. This protocol started in May 2012, and the few cases performed do not permit to draw conclusions yet. We acknowledge though, that the initial experience in SILA should be limited to practices where LA is done routinely, and with a solid experience in advanced laparoscopic surgery. The dissemination of the technique should be careful, and initially limited to carefully selected patients, in which the advantages of the laparoscopic approach to appendectomy are clear and evidence-based. Thus the proposal of a protocol to determine which patients should potentially benefit from SILA.

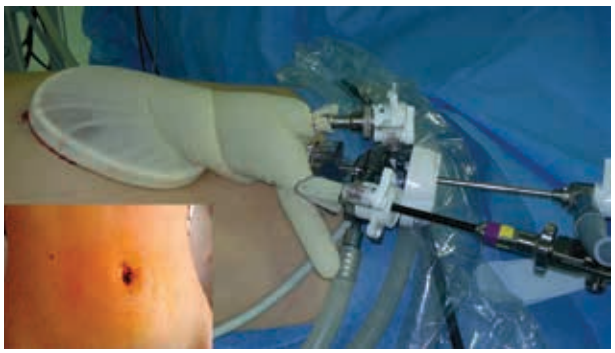

Figure 1. The Glove-Port and the Umbilical Scar

Authors' Contribution

Each author contributed equally to the study conception, writing and revision.

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