



## Comment on: ‘Money for nothing’. The role of robotic-assisted laparoscopy for the treatment of endometriosis

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To the Editor:

We read with great interest the published article by Berlanda et al. entitled “Money for nothing”. The role of robotic-assisted laparoscopy for the treatment of endometriosis [1].

Deep infiltrating endometriosis (DIE) with colorectal involvement is one of the most aggressive forms of endometriosis. At present, a minimally invasive surgery (MIS) and in particular the direct manual laparoscopy (DML), is considered the gold standard for radical treatment of DIE with colorectal involvement, as it results in faster recovery, reduced in-hospital stay, improved cosmesis, and lower postoperative morbidity compared to laparotomy. Robot-assisted surgery (RAS), is a technological advancement of DML, introduced with the aim to overcome its kinematics limitations.

In recent years, the diffusion of the da Vinci System has created much enthusiasm has grown between surgeons of different specialties, with a constantly growing application of RAS, and several studies have been published to describe safety and efficacy of RAS, as well as to compare RAS to DML. In particular, colorectal surgeons and gynecologists have explored RAS and have also applied it to the treatment of DIE [2].

In the article, Berlanda et al. describe a very well structured critical review of the literature about the role of RAS for the treatment of endometriosis. In particular, they reported that RAS treatment of endometriosis did not provide clear benefits over standard laparoscopy, in the face of a longer operative time and higher costs. They, therefore,

express concern for economic sustainability in the face of increasing use of the widely diffusion of da Vinci system, and they made conclusions against the use of robot for the treatment of DIE.

However, we have noticed that in all of the article the authors uses generically the terms of “robotic-assisted laparoscopy”, without specifying which system they refer to and in truth, the whole study is based on the da Vinci Si system, the most widespread version to date until recently. Indeed, only in the last 2–3 years, in many centers it has been gradually replaced by the most recent version, the da Vinci Xi. Therefore, we can agree with the conclusions reached by the authors only if applied to a specific robotic system, namely the da Vinci Si, but not if generalized to the broader concept of “RAS”.

In fact, recent works have shown that many of the conclusions reached to date, in the comparison between DML and RAS, unfavorable to the latter because of the longer operating times and higher costs, without clear evidence of clinical benefits, are referred to results obtained by comparing expert laparoscopists with novice robotic surgeons, using a now almost obsolete robotic system, the da Vinci Si.

Indeed, recently data published by our group on rectal resections performed with the two different da Vinci systems, showed that with the new robot, and with the increase of the surgeon’s experience, the results improve, and the costs are significantly reduced [3–5].

In conclusion, the article by Berlanda et al. deals with a very interesting topic using objective and critical methods. However, today the use of da Vinci Xi with case series being performed by expert robotic surgeons, and the use of new robotic system that will enter in the market, represents a totally different proposition from what is reported in this study, requiring careful objective re-evaluation of cost–benefit of RAS, also in the surgical treatment of DIE.

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## Compliance with ethical standards

**Conflict of interest** Palmeri Matteo, Di Franco Gregorio, Furbetta Niccolò and Morelli Luca declare that they have no conflict of interest.

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