

Is the Robotic Approach the Answer for Minimally Invasive Oncological Abdominal Surgery? †

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Abstract: The use of robotics in abdominal surgery has been slower than for other specialties due to the nature of this complex surgery - highly varied throughout the abdomen and the advanced laparoscopic skill set needed to perform it. The purpose of this presentation is to evaluate the advantages and disadvantages of robotic surgery and to establish the indications for using this approach. The cases with oncological pathology treated surgically by our team with the help of the da Vinci robot were analyzed. A branch of abdominal surgery in which we have practiced robotic surgery is colorectal pathology. Advantages include the lower rate of conversion, equivalent oncological outcomes, and decreased length of stay; the negative part is represented by the high costs of use and the extended operating time. An emerging solution for colorectal cancer with liver metastases is synchronous surgical treatment. Further descriptive reports are necessary to fully understand the benefits of this technique. Challenges that can occur during robotic surgery like prolonged operating time and extensive mental effort can be overcome by mixed teams and a second "time-out". Robotic cancer surgery is safe and feasible and overcomes some of the shortcomings of laparoscopic surgery. In some procedures, hospitalization is shorter, conversion rates are lower, and blood loss is less than laparoscopy. Further development of robotic surgery should be actively done by surgeons and also initiate high-quality studies.

Keywords: robotic surgery; abdominal surgery; da Vinci robot.

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Conflicts of Interest

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