Perspective
Volume 17:8, 2021

Journal of Surgery

ISSN: 1584-9341 Open Access

Perspective on the Analysis on Robotic Surgery in Laproscopy

John Rodriguez*

Department of Robotic Surgery, King Saud University, Riyadh, Saudi Arabia

About the Study

Robotic surgery had already been used in hospitals across the United States and Europe to treat a variety of ailments. The most extensively used clinical robotic surgical system includes a camera arm and mechanical arms with surgical instruments. The surgeon controls the arms from a computer station near the operating table.

Over the last three decades, oral and maxillofacial surgery has had a renaissance/transformation as a discipline, mainly in terms of technological advancements that have advanced patient surgical treatment. The authors acknowledge that if they had been exposed to many of the digital advances highlighted in this research earlier in their careers, their surgical experience would have allowed them to collect a bigger volume of outcomes data for OMFS-based clinical guidelines. The OMFS has been at the vanguard of extraoral and intraoral surgical techniques to the head and neck, with the latter offering benefits such as less apparent scarring, less tissue trauma, and the restoration of function and aesthetics. Tissue trauma, neurosensory deficiencies, vascular compromise, and edoema are the difficulties in addressing deeper regions not easily seen with the naked eye have all been noted as drawbacks. Technology has enhanced the capacity to provide treatment options that minimizes the surgical morbidities outlined previously over the last 25 years [1,2]. This article analyzes standard maximal transoral approaches to the care of pathologic lesions seen by oral and maxillofacial surgeons with a literature study using minimally invasive technologies and new techniques.

Mechanical assistance and support for robotic surgical tools are delivered by robotic-assisted. When compared to standard 'straight stick' laparoscopy,' it results a more ergonomic and less exhausting experience for the surgeon, potentially allowing for longer and more complicated surgeries [3]. Moreover, robotic surgery has a shorter learning curve than traditional surgery. Robotic surgery is carried out at minimal pneumoperitoneum pressure because to the mechanical support generated by the robotic arms. As a result, robotic-assisted MIS has the potential to benefit a large range of patients, including those who are at high risk of anaesthetic problems, such as obesity the elderly and those with medical comorbidities.

A recent meta-analysis compared robotic surgery to both laparoscopy and laparotomy in the treatment of endometrial cancer and found that robotic surgery was related with less blood loss and blood transfusions than both laparoscopy and laparotomy. In contrast, the length of service was greatly reduced. Although lymph node yield did not differ between groups, the robotic group had experienced fewer intraoperative problems and a lower rate of conversion to laparotomy. Robotic surgery has been linked to prolonged surgical timings in some studies. However, a randomized controlled trial conducted in a well-established laparoscopic centre identified both lower operating times [4] (when performing a hysterectomy, bilateral salpingo-oophorectomy and pelvic lymph-node dissection for endometrial cancer) and less time spent in the operating room for robotic-assisted laparoscopic surgery compared with traditional laparoscopic surgery describe their experience of the nationwide introduction of minimally invasive robotic surgery for early stage endometrial cancer. In Denmark, the national introduction of robotic surgery modified the surgical technique for early stage endometrial cancer from open surgery to minimally invasive surgery (MIS). The laparoscopic surgery rate for early endometrial cancer in Denmark was 14.1 percent prior to the invention of robotic surgery. The use of MIS increased from 3% in 2005 to 95% in 2015, following the nationwide deployment of robotic surgery [5]. Regardless of age, BMI, American Society of Anaesthesiologists (ASA) score, hypertension, smoking, socioeconomic status, or histopathological risk, this was linked to a much lower risk of severe complications and increased survival.

Some centres have introduced day-case services for laparoscopic or robotic-assisted hysterectomy for endometrial cancer due to the improved recovery of an patient experience [6]. This has been demonstrated in a number of single-center retrospective investigations utilising both robotic-assisted and laparoscopic surgery.

Conclusion

According to the evidence presented in this technology evaluation, robot-assisted surgery has the potential to improve a variety of clinical outcomes in patients undergoing prostatectomy, partial nephrectomy, or hysterectomy, with advantages varying depending

***Address for Correspondence:** Department of Robotic Surgery, King Saud University, Riyadh, Saudi Arabia; E-mail: johnrodriruez@hotmail.com*

Received: July 02, 2021; **Accepted**: July 16, 2021; **Published**: July 23, 2021

on the indication. Although there were few findings on robot-assisted cardiac surgery, they tended to favour robot-assisted surgery in terms of hospital stay. Due to a lack of evidence, comparisons of surgical methods on survival rates and time to return to work were inconclusive.

References

1. Boggess, John F, Gehrig Paola A, Cantrell Leigh and Shafer Aaron, et al. "A comparative study of 3 surgical methods for hysterectomy with staging for endometrial cancer: robotic assistance, laparoscopy, laparotomy." *Am J Obstet Gynecol* 199(2008): e361-369.
2. O'Neill, Michelle, Moran Patrick S, Teljeur Conor and O'Sullivan Orfhlaith E, et al. "Robot-assisted hysterectomy compared to open and laparoscopic approaches: systematic review and meta-analysis." *Arch Gynecol Obstet* 287(2013): 907–918.
3. Herron, DM, Marohn M, SAGES-MIRA Robotic Surgery Consensus Group. "A consensus document on robotic surgery." *Surg Endosc* 2(2008): 313–325.
4. Seror, Julien, Bats Anne-Sophie, Huchon Cyrille and Bensaid Cherazade, et al. "Laparoscopy vs Robotics in Surgical Management of Endometrial Cancer: Comparison of Intraoperative and Postoperative Complications." *J Minim Invasive Gynecol* 21(2013): 120-125.
5. Venkat, Pavithra, Chen Lee-May, Young-Lin Nichole and Kiet Tuyen K, et al. "An economic analysis of robotic versus laparoscopic surgery for endometrial cancer: costs, charges and reimbursements to hospitals and professionals." *Gynecol Oncol* 125(2012): 237–240.
6. Gocmen, Ahmet, Sanlikan Fatih, Ucar Mustafa Gazi. "Comparison of robotic-assisted surgery outcomes with laparotomy for endometrial cancer staging in Turkey." *Arch Gynecol Obstet* 282(2010): 539–545.

How to cite this article: Rodriguez, John. "Perspective on the Analysis on Robotic Surgery in Laproscopy." *J Surgery* 17 (2021) : 012.