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Robotics Surgery for Future Perspectives

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Introduction

Medicine is going through a technological revolution that produces a paradigm and makes us suppose in new ways of treating and diagnosing our cases. Minimally invasive surgery development and routine operation in multiple procedures has been the main Elaboration in the last 50 times, bringing great benefits to cases, surgeons, hospitals and indeed insurance companies [1]. In laparoscopic surgery the surgeon keeps control by handling inside an insufflate depression with an external fulcrum point for instrumentation. It changes drastically in robotic surgery, with the surgeon taking place in a virtual terrain outside the operative field, with a distant and circular control. its defines robotic surgery as a surgical procedure that adds a computer technology improvement interface to the commerce between the surgeon and his case during a surgical operation and assumes some degree of control yet fully reserved for the surgeon [2].

Description

Surgical robots have been envisaged to overcome the limitations and extend the capabilities of mortal surgeons, allowing them to perform precise and reproducible tasks. Its performance is embedded in the strengths and sins of laparoscopic surgery being suitable to avoid the fulcrum eject overcome the limited range of movements and depth perception and dismiss the surgeon physiological earthquake while keeping its minimally invasive nature. Robotic surgery or computer-supported surgery is an interactive system fast and intuitive that allows the computer to vanish from the surgeon's mind, which senses as real the terrain generated by the system. Through virtual reality, the surgeon defines the manoeuvres that the robot performs in the case. He console manipulator device can be placed in the same operating room or in a different place or ultimately in another megacity or country. Robotic or remote tele-presence surgery is grounded in two abecedarian generalities virtual reality and cybernetics [3]. Virtual reality achieves 3D absorption ejects, navigation, commerce and simulation in real time, making real what the surgeon sees and touches.

Cybernetics makes possible the movement digitalisation, promoting the development of mechanical articulated corridor programmed with stir degrees, cameras, detectors, information saving and data processing. So far tele- presence surgery uses slave robots that are not programmed to do any movement without surgeon's command and thus are fully dependent on his judgement knowledge and chops. It has a structure that resembles the deconstruction of mortal arms and articulations, able of imitating movements similar as those from shoulders, elbows, wrists and fritters, but exceeding its natural range of stir and adding the degree of freedom. Da Vinci System by Intuitive Surgical Inc., the most generally used device consists of a surgeon's press a slave robot with four interactive arms, instruments Given the constant irruption of new technologies, and espousing a realistic point of view, the surgeon has to completely estimate if in order to restate it into case well-being robotic surgery adds significant benefits to the procedure [4-5].

Conclusion

To assess the value of robotic surgery we've to assay some specific procedures Radical prostatectomy is a procedure in which robotics have shown lesser advantages over open and laparoscopic surgery, including reduction in postoperative complications, lower sanitarium length of stay and better oncological results, but with longer operative times. Laparoscopic Heller Myotomy is an elective treatment for characteristic achalasia but with series reporting perforation rates up to Studies comparing robotic vs. laparoscopic myology showed perforation rates of independently, attributing these results to enhanced visualization of muscular layers and more precise movements. A meta-analysis reviewing the data of 6 prospective randomized controlled trials including 226 cases compared laparoscopic vs. robotic fundoplication. It showed analogous results with both ways but longer operative time and advanced cost using robotic surgery. A methodical review of 9 case series with an aggregate of 130 cases showed better oncologic results in robotic esophagectomy. An advanced rate of negative perimeters and lesser number of bumps resected were attributed to a magnified view and easier analysis in a small space as the mediastinum. At Hospital Clinic of Barcelona we're presently performing intrathoracic analysis and anastomosis with robot system. We suppose analysis of upper mediastinum is do able and safe and could further be served by the preliminarily mentioned features of robotic surgery.

References

1. Gerhardus, Diana. "Robot-assisted surgery: the future is here." *J Healthc Manag* 48 (2003): 242–251.
2. O'Toole, Michael, Kaddour Bouazza-Marouf, David Kerr, and Mahendra Gooroochurn. "A methodology for design and appraisal of surgical robotic systems." *Robotica* 28 (2009): 297– 310.
3. Ballantyne, GH. "Robotic surgery, telerobotic surgery, telepresence, and telementoring. Review of early clinical results." *Surg Endosc* 16 (2002): 1389-1402.
4. Hazey, Jeffrey W, and W Scott Melvin. "Robot-assisted general surgery." *Semin Laparosc Surg* 11 (2004): 107-112.
5. Talamini, MA, S Chapman, S Horgan, and W S Melvin. "A prospective analysis of 211 robotic-assisted surgical procedures." *Surg Endosc* 17 (2003): 1521–1524.

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