

Does Robotic Surgery Have Any Roles in Current HBP Practices? : Yes, it does have a clear roles.

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The development of laparoscopic HPB surgery is relatively slow in comparing to other abdominal operations and it has not yet become mainstream treatment due to the high technical requirement, the difficulties in mobilizing the liver & pancreas, safety in performing demanding anastomosis, concerns about hemostasis and the fear of gas embolism and more importantly the skepticism in applying this approach for malignancy. Most of the studies have focused on feasibility and safety, and some also addressing the long-term oncological results, all of which seem to be similar to the open approach. Generally, laparoscopic HPB surgery is considered to be a safe, feasible and oncologically comparable to open counterparts in selected patients under expert hands.

The recent introduction of robotic surgical system has revolutionized the field of minimal access surgery. Robotic technology allows surgeon to perform challenging tasks and procedures that are technically demanding and difficult in laparoscopic surgery. The robotic surgical system overcomes many obstacles of conventional laparoscopic surgery. It improves dexterity, eliminates fulcrum effect and physiologic tremors and its three-dimensional imaging allows precise tissue manipulation and suturing. With the surgeon sitting at a remote and ergonomically designed workstation, current system also eliminates the need to twist and turn in awkward positions to move the instruments and visualize the monitor. Most importantly, faster acquisition of surgical skills and shortening of learning curve can be enhanced which are crucial for popularization of a surgical approach.

During the 4-year period from May 2009 to July 2013, we have performed 757 robotic operations in Pamela Youde Nethersole Eastern Hospital (PYNEH) with only 1.45% open conversion and 0.26% operative mortality rates respectively. In contrary to the western world, majority of our cases are general surgery (n=484) in which 263 cases (37.4%) are robotic HPB surgery. The remarkable success of robotic HPB surgery (n=263) has in fact drawn significant attention from the rest of the world and therefore we have been frequently invited to share our experience in local and international conferences.

Apart from feasibility and safety, more studies with long-term follow-up are needed to evaluate its optimal role. There is no doubt that this technology will continue to contribute to the future development of HPB surgery.