



ABST-0325

The Method Of Using Robotic Harmonic Ultrasonic Shear For Parenchymal Transection In Robotic Right Hepatectomy

Kwan Woo KIM*, Sung Hwa KANG, Eun Jeong JANG

Surgery, Dong-A University Hospital, REPUBLIC OF KOREA

Background : It is undeniable that minimally invasive liver surgery has been shown to offer specific many advantages. However, although minimally invasive surgery should be the standard approach for the majority of hepatic resections, many centers still perform open liver surgery. This can partly be explained with intrinsic limitations (decreased range of motion and dexterity, poor ergonomics, unstable visualization) of the laparoscopic approach.

Methods : Robotic liver surgery is emerging as the future of minimally invasive surgery, overcoming the disadvantage of laparoscopic surgery. The robotic surgical system offers a stable camera platform, elimination of physiologic tremor, augmented surgical dexterity as well as improved ergonomics because of a seated operation position. Due to the theoretical advantages of the robotic assisted system, complex liver surgery might be an especially interesting indication for a robotic approach since it demands delicate tissue dissection, precise intracorporeal suturing as well as difficult parenchymal transection with subsequent need for meticulous hemostasis and biliostasis.

Results : Despite the advantages of these robotic platform, there is no robotic CUSA application, which a concern for those surgeons accustomed to this modality for parenchymal transection. However, with practice and with the aid of steady and enhanced 3D visualization, the majority of robotic surgeons are successfully adapting to the use of robotic Harmonic ultrasonic shear and articulated bipolar forceps for parenchymal transection. Our center has experience of about 50 cases of robotic liver resection, including 11 pure robotic right donor hepatectomy. Only robotic Harmonics for parenchymal transection was used in all robotic liver resection.

Conclusions : Although it is a small experience of robotic liver resection using robotic Harmonic ultrasonic shear in small volume center, we are going to share the method of using robotic Harmonics for parenchymal transection through the video clip.

Corresponding Author : **Kwan Woo KIM** (d002045@gmail.com)