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## **Voice-Controlled Robotic Arm in Laparoscopic Surgery**

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**Aim.** To report on our experience with a voice-directed robotic arm for scope management in different procedures for "solo-surgery" and in complex laparoscopic operations.

**Methods.** A chip card with orders for the robotic arm is individually manufactured for every user. A surgeon gives order through a microphone and the optic field is thus under direct command of the surgeon.

**Results.** We analyzed 200 cases of laparoscopic procedures (gallbladder, stomach, colon, and hernia repair) done with the robotic arm. In each procedure the robotic arm worked precisely; voice understanding was exact and functioned flawlessly. A hundred "solo-surgery" operations were performed by a single surgeon. Another 96 complex videoscopic procedures were performed by a surgeon and one assistant. In comparison to other surgical procedures, operative time was not prolonged, and the number of used ports remained unchanged.

**Conclusion.** Using the robotic arm in some procedures abolishes the need for assistance. Further benefit accrued by the use of robotic assistance includes greater stability of view, less inadvertent smearing of the lens, and the absence of fatigue. The robotic arm can be used successfully in every operating theater by all surgeons using laparoscopy.

**Key words:** cholecystectomy; colon resection; fundoplication; gastric banding; gastric resection; laparoscopic surgery; robotic