

VIII CONGRESO CHILENO DE
**CIRUGÍA BARIÁTRICA
Y METABÓLICA**



IA, Realidad aumentada y Cirugía 3D en Cirugía Bariátrica

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Cirugía Digestiva y Bariátrica
RedSalud – Centro B&O

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Original Study

ANNALS OF
SURGERY OPEN

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Robotic Magnetic Surgery: Results From the First Prospective Clinical Trial

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Objectives: To evaluate a novel Magnetic Robotic Platform during reduced-port laparoscopic surgery in a prospective, multi-center clinical trial.

Background: Magnetic surgery has been developed to increase the benefits of minimally invasive surgery, with prior studies demonstrating its clinical benefits. Robotic-assisted surgery increases the surgeon's control over the instruments, offering less dependency on an assistant. The synergism of both techniques may escalate these individual benefits.

Methods: A prospective, multicenter, single-arm, open-label study was performed to assess the safety and performance of a robotic magnetic surgical system (Levita Robotic Platform). The investigational device was used during reduced-port laparoscopic cholecystectomy and laparoscopic bariatric surgery. The primary endpoints evaluated were safety and feasibility. Patients were followed for 30 days post-procedure.

Results: Between May 2021 and December 2021, 30 patients undergoing laparoscopic surgery were recruited. There were 22 females and 8 males with a mean age of 39 years (22–69 years) and median body mass index of 33 kg/m² (21.6–50.4 kg/m²). Procedures included 15 gastric sleeves, 14 cholecystectomies, and 1 Roux en-Y gastric bypass. The procedures were successfully performed by utilizing the robotic magnetic surgical system and a reduced-port technique in all 30 patients. No device-related serious adverse events were reported. The device provided adequate visualization and retraction in all cases.

Conclusions: This clinical trial shows for the first time that this novel Magnetic Robotic Platform is safe and feasible in reduced-port laparoscopic cholecystectomy and laparoscopic bariatric surgery. This robotic platform brings the benefits of magnetic surgery in terms of reduction of incisions plus increasing the control for the surgeon.

Keywords: magnetic surgery, minimally invasive surgery, remote-controlling, technology

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ORIGINAL ARTICLE

First in-human experience with a novel robotic platform and Magnetic Surgery System

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Abstract

Background: Magnetic technologies have been introduced to reduce invasiveness of surgical procedures. This study was aimed to analyse the performance of a novel combined magnetic-robotic controller as an enhanced accessory to the Magnetic Surgical System in laparoscopic cholecystectomy (LC).

Methods: This was a prospective study of 10 consecutive patients undergoing LC with this novel surgical system.

Results: Ten patients were included, nine were female. The mean age was 30.3 ± 9 years. All patients had chronic cholecystitis. Procedures were completed successfully. The median operative time was 50 ± 11 min. The system performed effectively in all cases with no need of additional interventions. There were no device-related complications or side effects. All patients were discharged the same day. Recovery was uneventful during follow-up.

Conclusions: This study demonstrates the first in-human successful performance of surgeries utilizing a novel combination of magnetic and robotic technologies in one integrated system.

KEYWORDS

cholecystectomy, magnetic surgery, minimally invasive surgery, robotic surgery



ELSEVIER

Surgery for Obesity and Related Diseases ■ (2020) 1–6

SURGERY FOR OBESITY
AND RELATED DISEASES

Original article

First prospective clinical trial of reduced incision bariatric procedures using magnetic liver retraction

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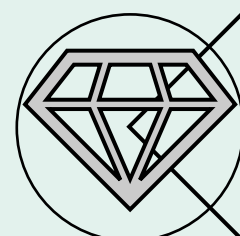


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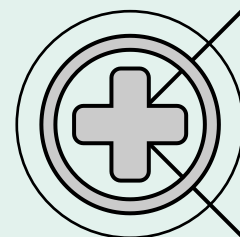
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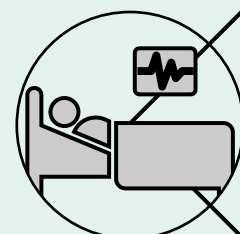
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Valor de marca



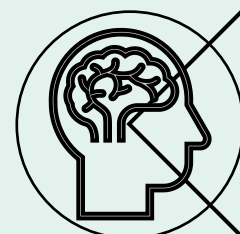
Mejores y mas modernos tratamientos



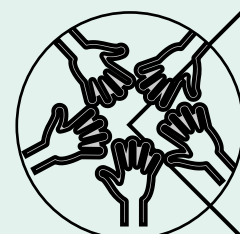
Captación de pacientes



Estimulo a profesionales



Educación medica



Desarrollo de equipos multidisciplinarios



Mejor salud para los pacientes

Gracias

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