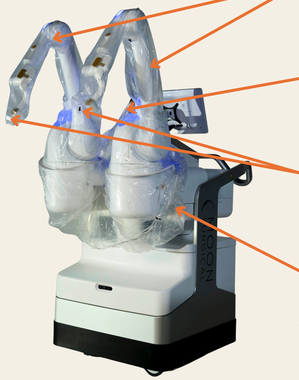
PIONEERING AUGMENTED LAPAROSCOPY IN BARIATRIC SURGERY: A MULTICENTER EVALUATION USING A NOVEL ROBOTIC ASSISTANT

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BACKGROUND

Bariatric surgery requires precise visualization and consistent tissue manipulation. The Maestro™ system (Moon Surgical, Paris, France), a novel robotic assistant, enhances surgical precision while keeping the surgeon at the bedside. This study assesses its feasibility, safety, and impact on workflow efficiency in bariatric surgery.

The Maestro System



2 hypersensitive robotic arms
enables stable vision and precise retraction
rapidly adaptable for multi-quadrant surgery

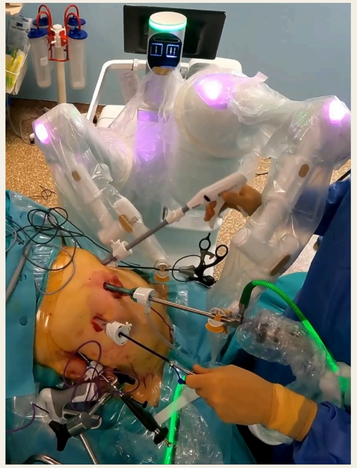
2 x 3D cameras
collect RGB-D data about the surrounding environment

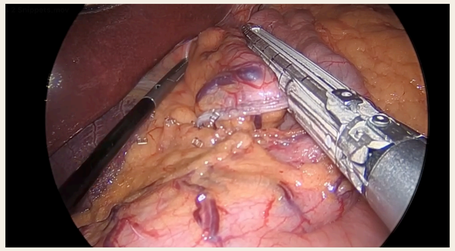
Instrument graspers
supports off-the-shelf instruments 5mm or 10mm in diameter

Edge-computing GPU
performs high speed real-time computer vision analysis

METHODS

Centers	Jacksonville, FLA (USA) Nice, Marseille, Besançon (France)
Study design	Retrospective analysis of prospectively collected data
Procedures	221 (119 sleeves, 102 RYGB)
Mean pt age	42 years
Mean BMI	41.1 kg/m²
ASA score	2

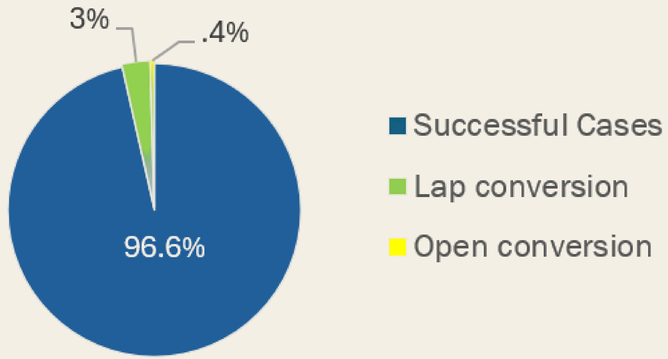






RESULTS

Success rates of Maestro-assisted bariatric procedures including learning curve (221 cases)



OUTCOMES*	VALUE
Sleeve Mean time (n=119)	45 min
RYGB Mean time (n=102)	82 min
Successfull case	96,4%
Conversion to laparoscopy	7 (3,2%)
Conversion to open	1 (0.4%)
Morbidity	Low
Mortality	0%

**including learning curve*

CONCLUSIONS

- Maestro is **safe and feasible for bariatric surgery**
- The system proved **ergonomics and efficiency** for surgeons and staff
- This novel device can **improve OR workflow,** reduce assistant workload and **potentially reduce operative** time resulting in **better patient outcomes**