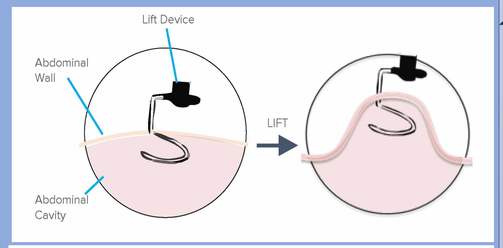
THE RAIS DEVICE FOR GLOBAL SURGERY: TAKING LAPAROSCOPY TO LOW RESOURCE SETTING.

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- Laparoscopic surgery has advantages over open surgery in terms of reduced operative time, shorter hospital Stay, and better cosmetic results.
- However, access and affordability to laparoscopic surgeries in rural areas is a big challenge due to multiple reasons.
- We present a novel abdominal lift design for gasless laparoscopy, with a potential to extend the benefits of laparoscopic surgeries to rural populations.





Understanding Need and Context

Frugal Innovation – Keeping solutions simple + robust

Commercial version of RAIS with regulatory approval

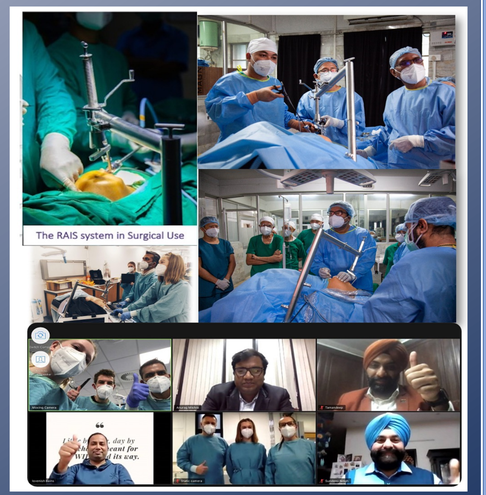


Participatory Design (or working together)

Iterative Development and Evaluation

Clinical Evaluation





RAIS - Retractor for Abdominal Insufflation-less Surgery

- ✓Can be performed under Spinal Anaesthesia[1]
- ✓CO_2 not required
- ✓Easier to provide training[1]
- ✓Simple laparoscopic/open instruments can be used
- ✓Faster recovery time[2]

No significant difference in mean operating time

Better intraoperative vital signs

Postoperative pain score comparable and No additional analgesia

Good Surgeon Satisfaction Score

"Gasless laparoscopy using RAIS can provide advantages of Minimal Access Surgery in Low resource Settings"