



Crossing over to Industry: Promotion or Way Out

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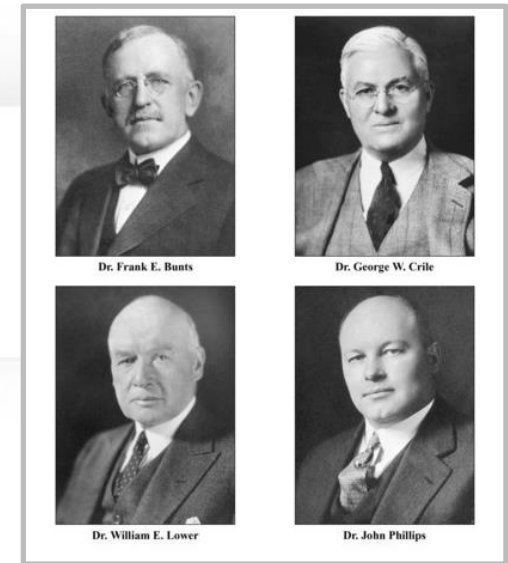
Disclosures

- CMO, Medtronic
- Advisory Board:
 - Kintsugi
 - Endolumik
 - FastPathway
 - New York University Abu Dhabi

Why was I interested in the First Place?

Cleveland Clinic History

- Founded 1921
- Innovative from start
- Not for Profit
- Group Practice
- Physician Leadership



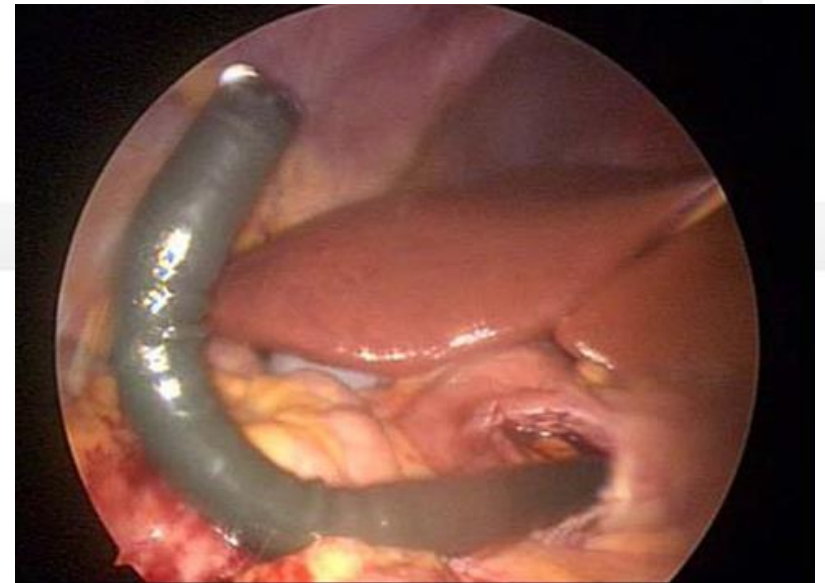
Minimally Invasive Surgery

- Less invasive
- Better outcomes
- Fewer complications
- Open surgery to laparoscopic surgery to endoscopic surgery



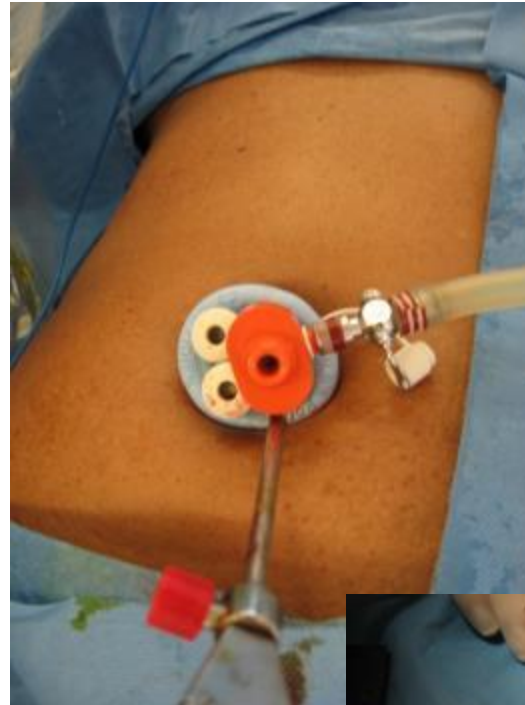
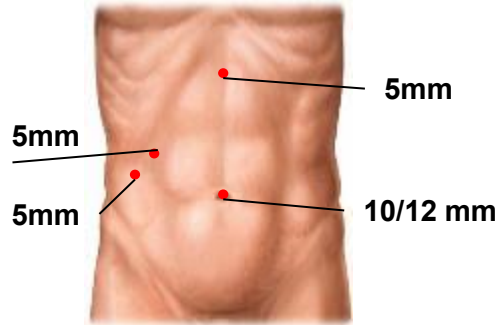
SILS versus NOTES™

- What is the relationship between the two approaches?
- Competing or complementary?

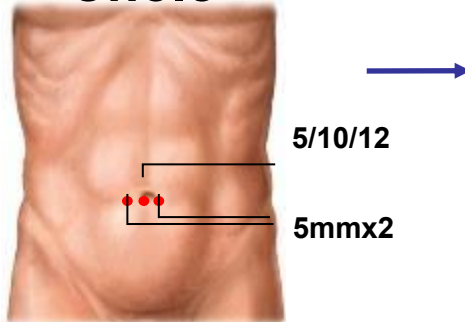


Single Incision Laparoscopy

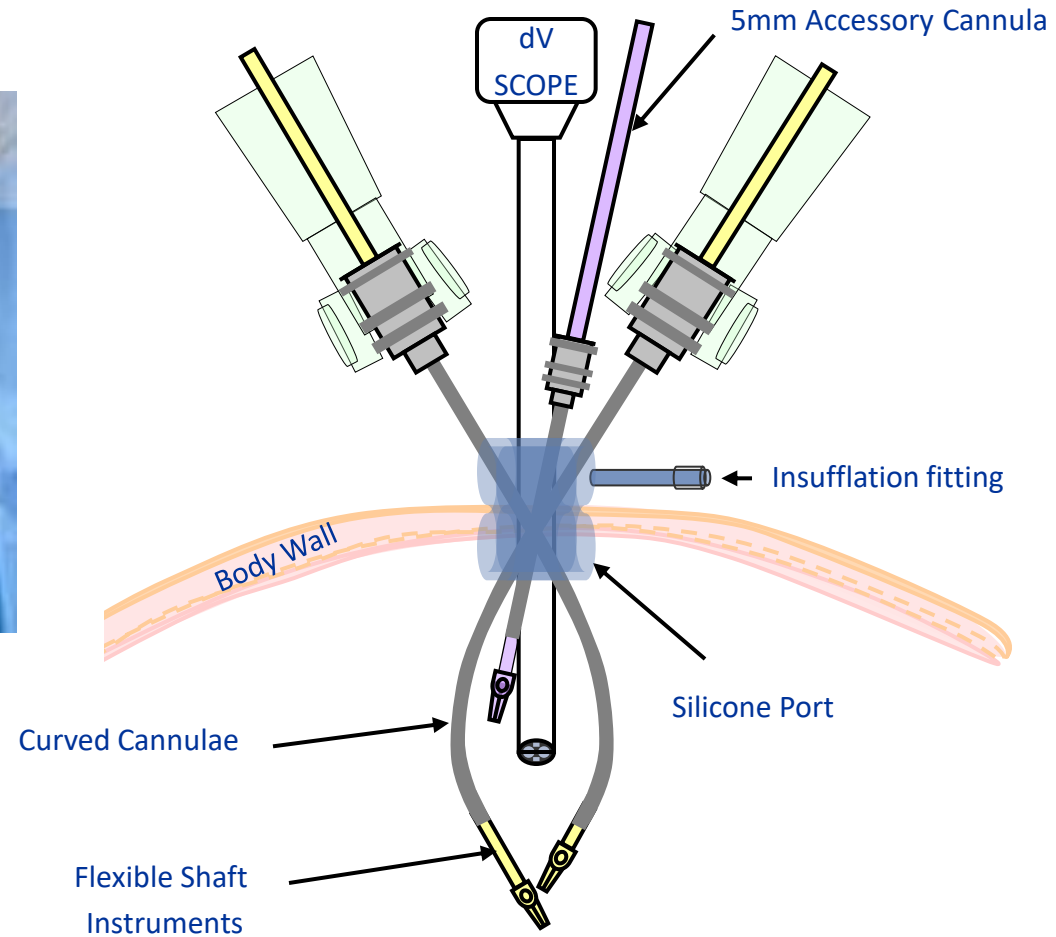
Lap Chole



Single Site / Port Chole



Application of Robotics



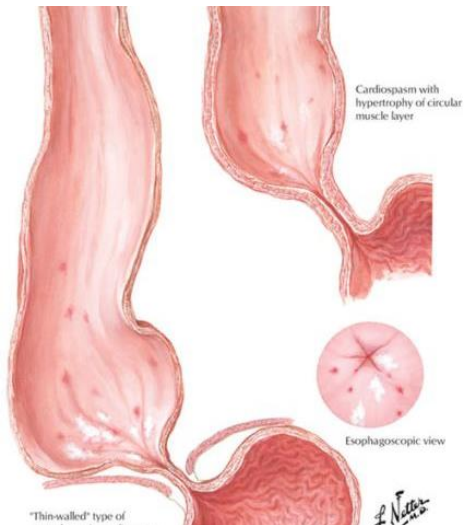
Laparoscopic Completion Cholecystectomy and Common Bile Duct Exploration for Retained Gallbladder After Single-Incision Cholecystectomy

Matthew Kroh, MD, Sricharan Chalikonda, MD, Bipan Chand, MD, R. Matthew Walsh, MD

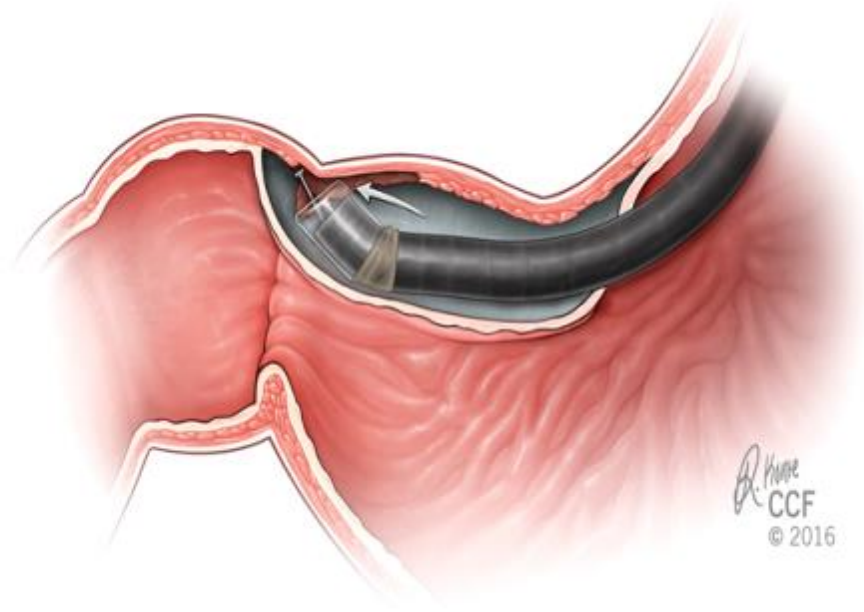
- Complications associated with new techniques
- Some established, others new



POEM at CC



January 28, 2014



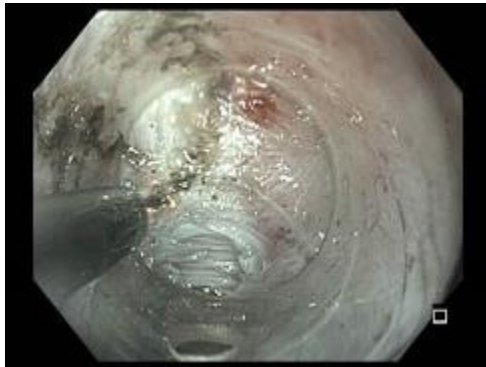
Per-oral Pyloromyotomy (POP) for Medically Refractory Gastroparesis

Short Term Results From the First 100 Patients at a High Volume Center

John Rodriguez, MD,† Andrew T. Strong, MD,*† Ivy N. Haskins, MD,‡ Joshua P. Landreneau, MD, MSc,*
Matthew T. Allemang, MD,* Kevin El-Hayek, MD, FACS,*†§ James Villamere, MD,* Chao Tu, MS,¶
Michael S. Cline, DO,†|| Matthew Kroh, MD, FACS, FASMBS, FASGE,*†** and Jeffrey L. Ponsky, MD, FACS*†*

- 100 patients
- 56% idiopathic, 21% diabetic, 19% post-surgical
- GCSI, GES at 90 days
- 100% technical success
 - 97% in OR, average of 33 minutes
- GCSI improved, pre- 3.82 to post-2.54 ($p < 0.001$)
- GES improved in 78%, mean improvement in retention by 23.6% ($p < 0.001$)

Cleveland Clinic Abu Dhabi



Crossing over to Industry: Promotion or Way Out

Flip the Question

- Leaving the OR doesn't mean leaving medicine
 - Scaling medicine in new ways
- Many surgeons collaborate with industry
 - Innovative nature, natural problem solvers
- Opportunity to take decades of insight, channel it into insight that helps millions of patients

Current Role

- Chief Medical Officer, Medtronic
 - Core Surgical Innovation
- Global
 - Different needs, different regions
 - Robotics, Digital Surgery, Lap, Open
- Areas include:
 - General Surgery, Bariatrics, Hernia, HPB, Breast, CORS, Plastics, Thoracic, GYN, Urology
- Roles include:
 - BD, Medical Affairs, Strategy, Sales, Marketing, Physician/KOL development, Society relationships
- Impact on magnitude of scale: Medtronic
 - 2 patients, every second of every hour of every day



Why Surgeons in Industry Matter

- Clinical credibility
 - Real-world context- what works, what doesn't what matters in a 2:00AM Emergency case
- Translation
 - Translate between engineers, business, and the OR
 - Without this, innovations may be elegant but irrelevant
- Trust
 - Having surgeons at the table builds credibility with hospital, regulators, and patients

Opportunities to Shape the Future

- Less invasive care
 - Push technologies that replace open with laparoscopic, laparoscopic with robotic, robotic with endoluminal
- Cost-conscious innovation
 - Bring perspective on value, efficiency, and outcomes
 - Not just new devices
 - Solutions hospitals and patients can actually afford

Opportunities to Shape the Future

- Global reach
 - One surgeon in one OR can only impact so many patients. In industry, the scale multiplies
 - Thousands of hospitals, millions of patients
- Shaping evidence
 - Industry is uniquely resourced to generate the data that influences practice and guidelines
 - Collaboration with societies
 - Local
 - National
 - International

Unique Perspective of the Practicing Surgeon

- We see unmet needs firsthand
 - From device development and instrument design to workflow bottlenecks and access
- We understand the balance between outcomes, safety, performance and cost that drives adoption
- Leadership skills honed in the OR
 - Decision-making, teamwork, calm under pressure translate directly to guiding cross-functional global teams

Why It's Not a "Way Out"

- Industry isn't an escape hatch
- Done well, it's an extension of our professional mission:
 - From *treating individual patients* → to *shaping technology that treats populations*
- New intellectual challenges:
 - Navigating regulatory, economics, and global health trends

Industry and Academia: Better Together

- Academia thrives on discovery, training, and evidence
- Industry thrives on scale, speed, and execution
- When surgeons move across-or even straddle both worlds-the synergy is powerful
- Both share the same ultimate goal:
 - Better, safer care for patients

Closing Thoughts

- Crossing into industry isn't about stepping away
- Surgeons can and should shape the tools, systems, and solutions that define the future
- Industry is **influencing surgery at a different scale**—influencing design, policy, economics, and access for the next generation of patients

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