Teaching Bariatric Surgery Globally: The Sleeve Gastrectomy Experience

SAGES TELEMENTORING INITIATIVE

August 20-22, 2015
Los Angeles, California

Ninh T. Nguyen, MD
Professor of Surgery
Interim Chair, Department of Surgery

University of California, Irvine Medical Center
Disclosure

- Olympus (speaker)
Bariatric surgery is a dynamic field

- Frequent innovation in technique and technology
  - SADI
  - Endoscopic sleeve
  - Intragastric balloon
What is the Optimal Method for Acquisition of New Skill?

• Any new operation has a learning curve

• Learning curve can be associated with higher morbidity and even mortality

• Education and mentoring process reduces the learning curve and potentially its associated complications
• Step I: Structured didactics

• Step II: Hands-on laboratory and simulation training

• Step III: On-site surgical mentoring

Holmes DR et al. Am Heart J 2005
Advantages of Surgical Mentoring

• Provides real-time suggestion and learning

• Reduces error

• Improve patient outcome

I have got your six!
Limitations of On-site Surgical Mentoring

• Time intensive for the mentor

• Loss work productivity

• Patient and schedule conflict that can lead to cancelling of cases

• High travel-related cost

Holmes DR et al. Am Heart J 2005
SAGES Sleeve Gastrectomy Telementoring Project (FAME Grant) Modified 3-step Process

• Step I: Structured didactics

• Step II: Hands-on laboratory training, simulation training, or live case Teleobservation

• Step III: Surgical Telementoring

Holmes DR et al. Am Heart J 2005
Surgical Telementoring

- SAGES defines surgical telementoring as a relationship, facilitated by telecommunication technology, in which an expert (mentor) provide surgical guidance to a less experienced learner (mentee) from a remote location.
SAGES Sleeve Gastrectomy Telementoring Project

• Target Procedure: laparoscopic sleeve gastrectomy

• Establish a formal educational relationship between mentor and mentee

• Licensure:
  - Mentor and mentee paired within same state (except for Delaware & West Virginia)

• Primary endpoint:
  - Feasibility & satisfaction of the telementoring process
SAGES Sleeve Gastrectomy Telementoring Curriculum

• Step 1: Didactic
  - SAGES Handbook of Bariatric Surgery
  - ASMBS Textbook of Bariatric Surgery

• Step 2: Live case teleobservation

• Step 3: Live case telementoring

• Step 4: Evaluation of telementoring process
SAGES Sleeve Gastrectomy Telementoring Project

- Mentee: competent surgeons currently performing sleeve gastrectomy

- Mentor: performed at least 75 sleeve cases and participate within an MBSAQIP accredited center
Mentee Background

- Practicing surgeons: 13
  - Montefiore (2)
  - UCI (3)
  - MGH (2)
  - McMaster University (2)
  - Loma Linda (1)
  - Guatemala (1)
  - Argentina (1)

- MIS/Bariatric fellows: 3
  - UCI (1)
  - McMaster University (1)
  - Montefiore (1)
List of Mentors

- Montefiore
  - Erin Moran-Atkins
  - Diego Camacho
- University of California Irvine
  - Mahbod Paya
  - Ninh Nguyen
- University of Toronto
  - Allan Okraine
- Mass General
  - Denise Gee
  - Janey Pratt
Telementoring Platform

TM Platform

- Live audio
- Live video

TM Receiving Platform

- Laptop
- iPad
- iPhone
Teleobservation Session

iPad
Teleobservation Session: Guatemala
Teleobservation Session
Telementoring Session
Telementoring Session: Lap Top
Telementoring Session
Telementoring Session
Telementoring Session: Mentor’s View
iPhone
• Great technology
• Very usable platform
• Great tool to have in the OR particularly if there are concern or questions to talk to someone
• Excellent learning tool
• The experience gave me more confidence
• Nice tips for my daily practice
• The S-video did not work
• Great contact with the proctor
Logistics Limitations

• Scheduling of cases

• Delay of cases and communication issues on day of TM

• Failure for mentee to attend cases or failure for mentor to set up TM equipment

• Time zone difference
Technology Limitations

• Equipment malfunction
  - No audio
  - No S-video signal (laparoscopic image)

• Equipment availability
Legal/Regulatory Limitations

- Difficult to obtain liability indemnification by hospital
- Mentor/mentee work within confined to state lines
Education Limitations

• Most surgeons have existing procedural preference
  - Trocar positioning
  - Laparoscopic equipment
  - Liver retractor

• Inability to control mentee acceptance of advice
Financial Implications

- Cost of the surgical mentoring platform
- Payment model for mentor
- Cost for malpractice coverage
Conclusions

• Surgical telementoring is feasible and effective

• Provides a convenient educational tool that eliminate the need for travel by both mentee and mentor

• Further work is needed to overcome the logistics, legal, regulatory, technological, and educational limitations

• Wide spread adoption of telementoring will require availability of a cost effective telementoring platform
Teaching Bariatric Surgery Globally: The Sleeve Gastrectomy Experience

SAGES TELEMENTORING INITIATIVE

August 20-22, 2015
Los Angeles, California

Ninh T. Nguyen, MD
Professor of Surgery
Interim Chair, Department of Surgery

University of California, Irvine Medical Center
Telementoring in Bariatric Surgery

Ninh T. Nguyen, MD
Professor of Surgery
Interim Chair, Department of Surgery

University of California, Irvine Medical Center