GIST
Pre-Operative Treatment & Surgical Approaches

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• UCLA GIST History
• General Principles of GIST Surgery
• Pre-Operative (Neoadjuvant) Therapy

Kadera

• Laparoscopic / Minimally Invasive GIST Surgery
Minimally invasive treatment of GIST

Open versus laparoscopic incisions
Minimally invasive treatment of GIST

CT image of small exophytic gastric GIST

CT images courtesy of Camilo Correa, MD
Laparoscopic identification of small gastric GIST

Minimally invasive treatment of GIST

Intraoperative photos courtesy of John Kunstman, MD
Minimally invasive treatment of GIST

- Decreasing morbidity of surgery
  - Small incisions, faster recovery
  - Less blood loss
- Technical concerns
  - Size
  - Location
  - Tumor rupture
  - Role of preoperative imatinib?
Minimally invasive treatment of GIST

CT image of small duodenal GIST

SMA = superior mesenteric artery
SMV = superior mesenteric vein
Open approach to dudodenal GIST
Laparoscopic versus open treatment of GIST

- Meta-analysis of 28 studies comparing laparoscopic versus open technique
  - Mean tumor size = 4.54 cm lap group (n = 1,000 patients)
  - 5.67 cm open group (n = 1,169 patients)

*Minor abd or wound infections*
Laparoscopic versus open treatment of GIST

- Meta-analysis of 28 studies comparing laparoscopic versus open technique
  - Mean tumor size = 4.54 cm lap group (n = 1,000 patients)
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Minimally invasive treatment of GIST

Robotically-assisted approach to GIST
Minimally invasive treatment of GIST

Robotically-assisted approach to gastric GIST
Minimally invasive treatment of GIST

Robotically-assisted approach to duodenal GIST

Video courtesy of Mark Girgis, MD
Minimally invasive treatment of GIST

• Summary
  • Laparoscopic technique is safe in well-selected cases
    • Smaller tumor size
    • Accessible location

• Areas of research
  • Safety of robotically-assisted approach
    • Increased dexterity at the expense of tactile feedback
    • Preoperative treatment with imatinib reduce risk of tumor rupture?

Photo courtesy of Mark Girgis, MD