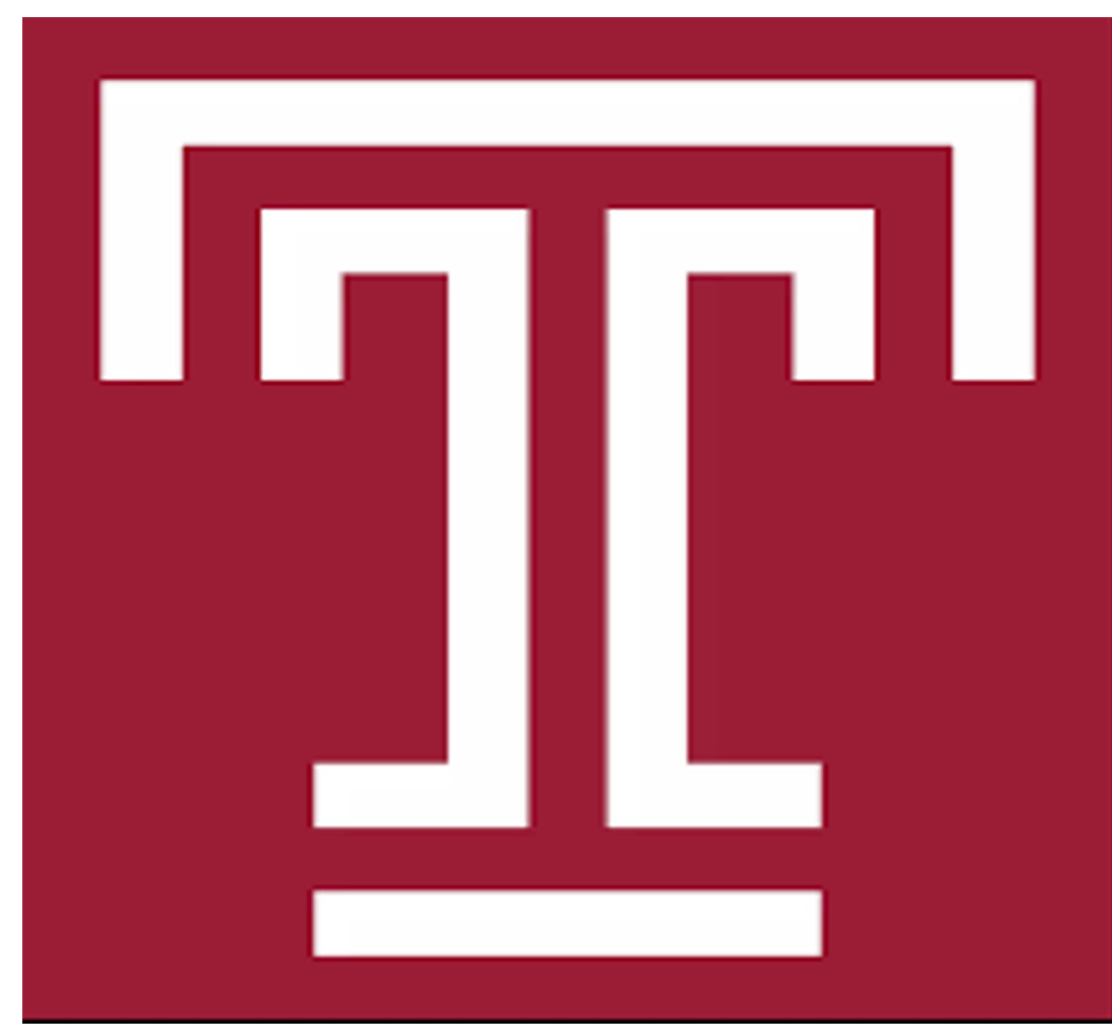
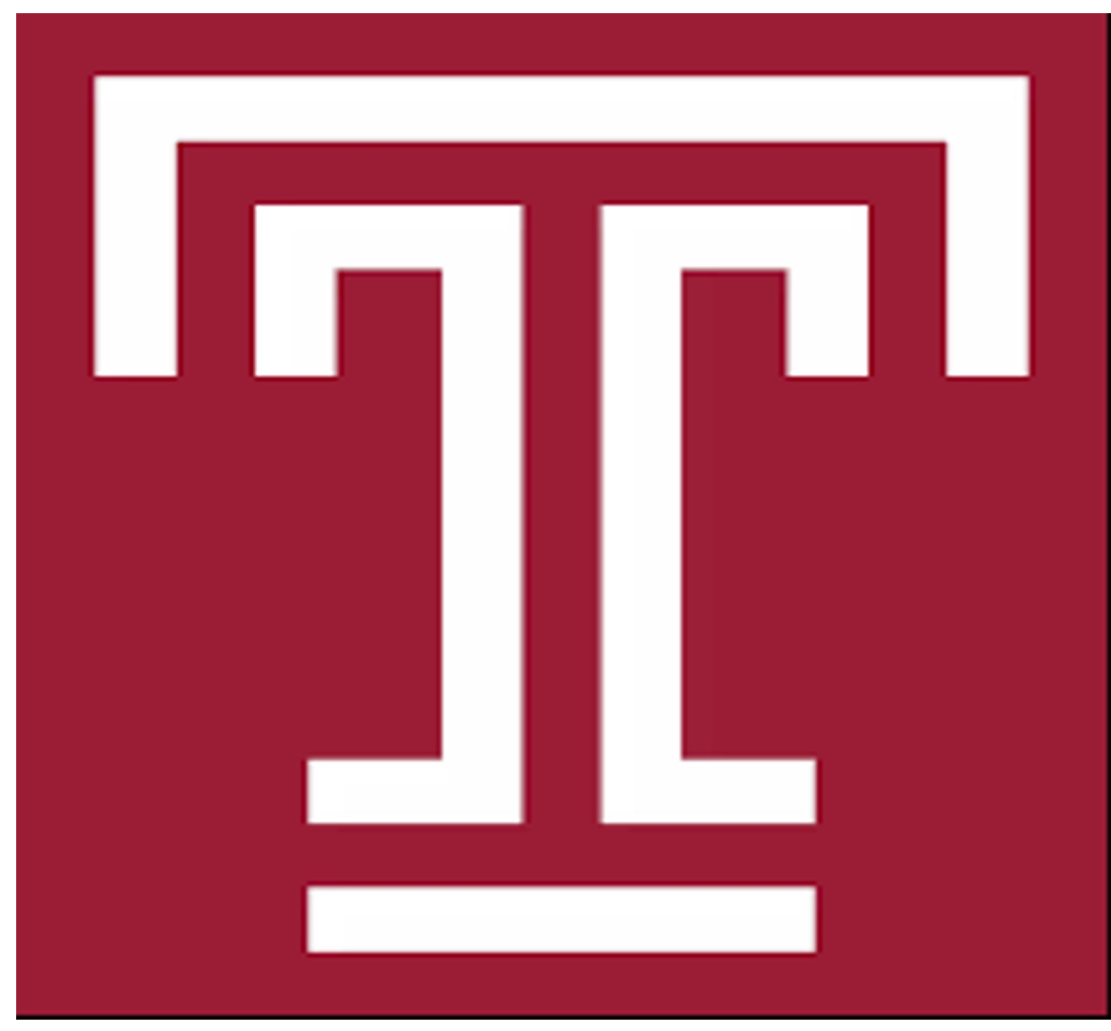




Multidisciplinary Management of a Third Trimester Parturient with a Rapidly Expanding Renal Mass Undergoing Radical Nephrectomy

Jake Graffe, DO; Jack Peace, MD; Diana Feinstein, DO

Temple University Hospital, Philadelphia, PA



Introduction

- ▶ Challenging to manage solid organ masses in parturients
 - ▶ Surgical & anesthetic risks to mother and fetus
 - ▶ Careful analysis of risks & benefits required

Case Presentation

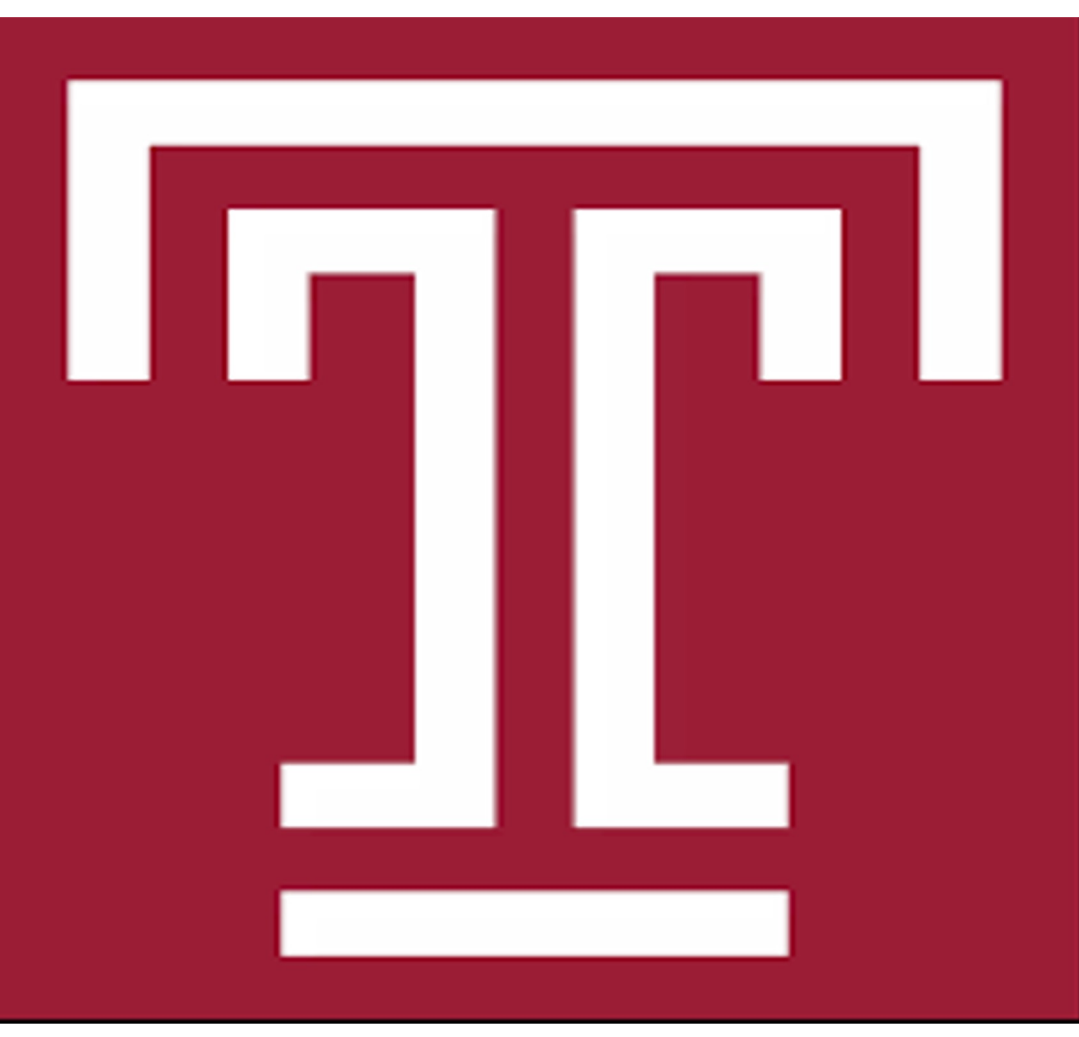
- ▶ 40-year-old, G1P0 initially presented for MRI abdomen/pelvis for known fibroids → incidental discovery of an asymptomatic, exophytic cortical mass in upper pole of right kidney
- ▶ Subsequently presented at 31w1d for right radical nephrectomy
- ▶ PMHx: Uterine fibroids, fibromyalgia, anxiety, depression
- ▶ Surveillance MRI at 26w0d revealed expansion of ~1.3 cm over 6 months, a concerning rate¹
- ▶ Concerning features: Complex, exophytic appearance; rapid growth rate, history of fibroids



Baseline MRI, non-pregnant state

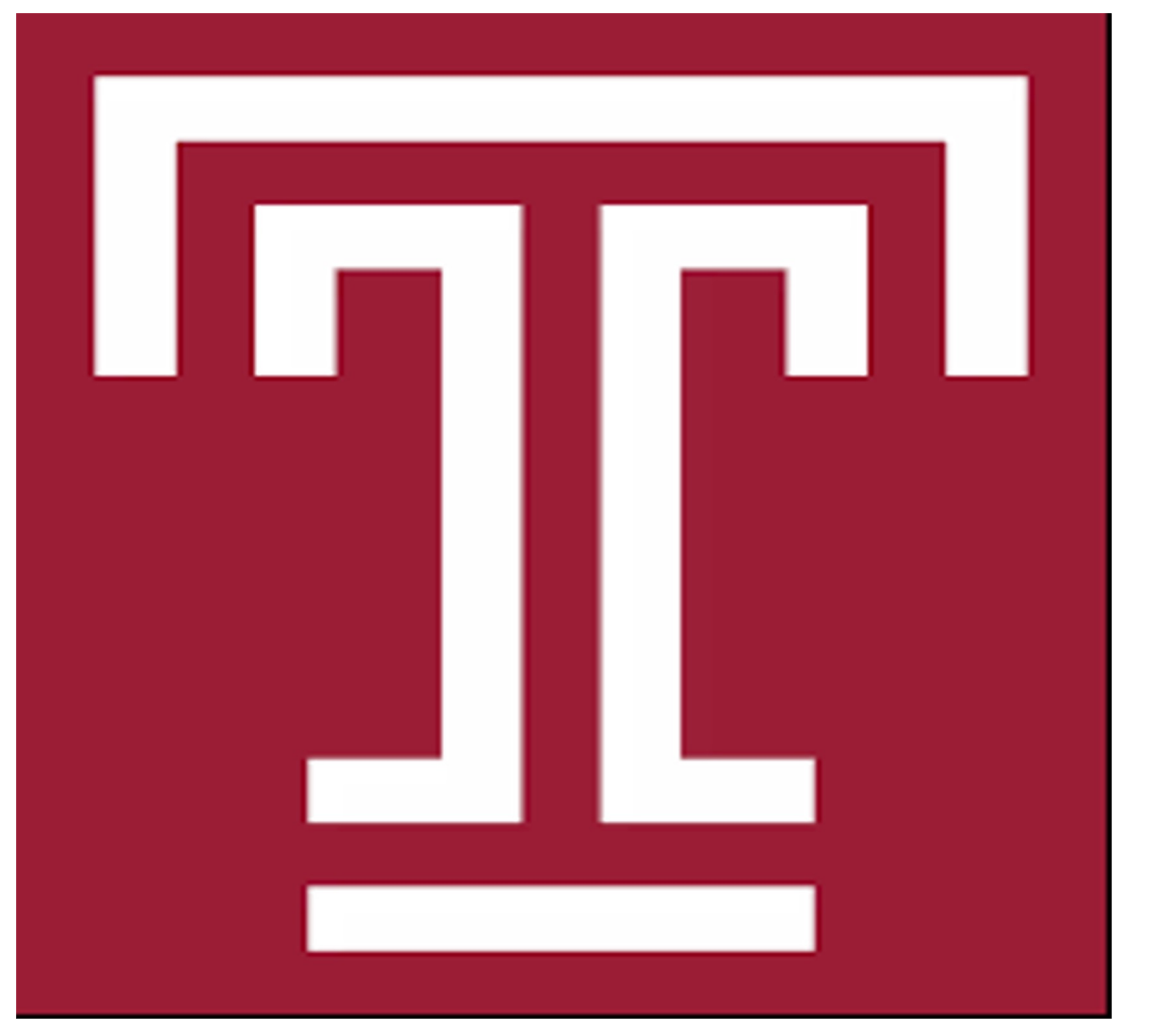


Follow-up MRI, 26w0d



Multidisciplinary Management of a Third Trimester Parturient with a Rapidly Expanding Renal Mass Undergoing Radical Nephrectomy

Jake Graffe, DO; Jack Peace, MD; Diana Feinstein, DO
Temple University Hospital, Philadelphia, PA



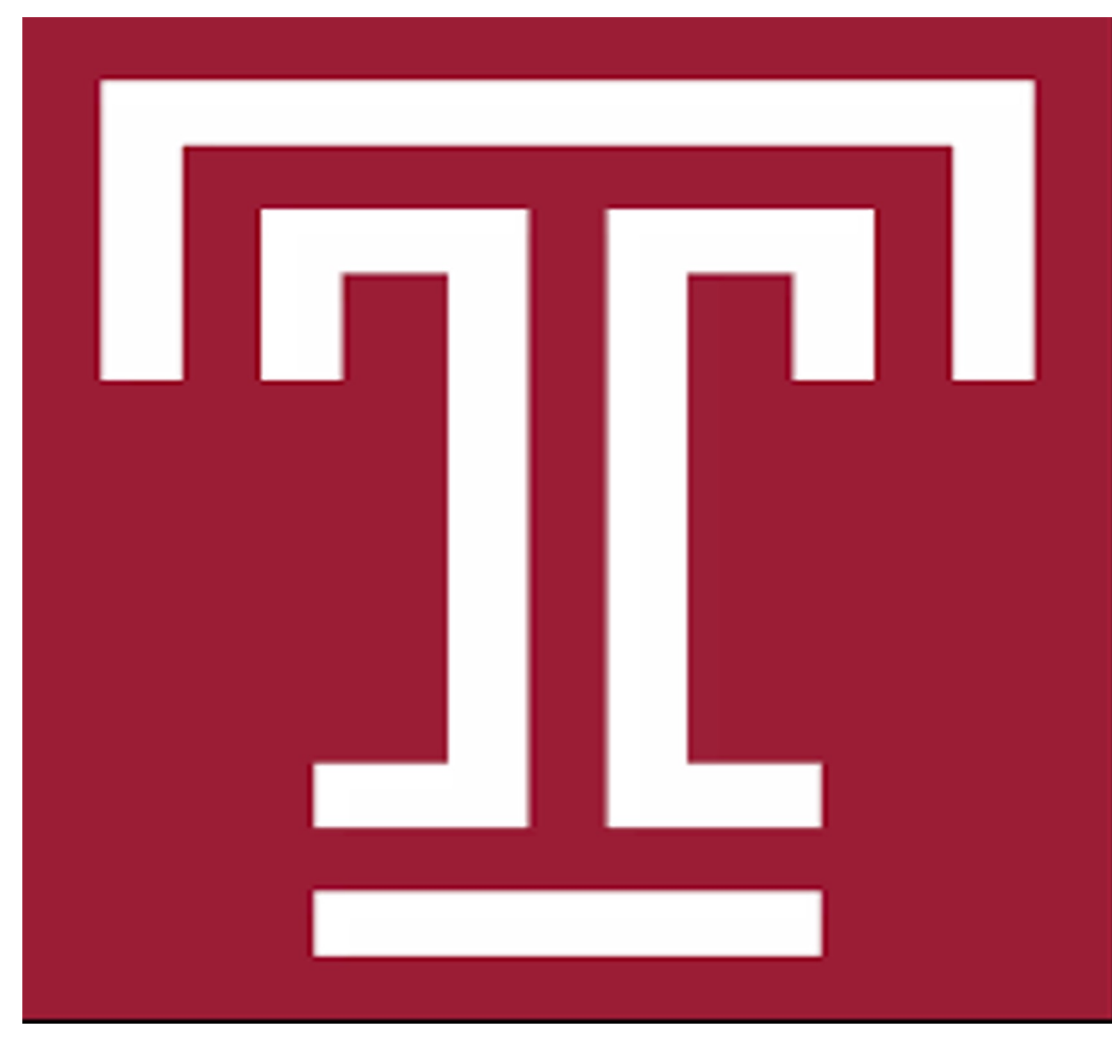
Intraoperative Management

We describe the multidisciplinary perioperative management of a parturient in her 3rd trimester undergoing radical nephrectomy in the setting of a renal mass exhibiting rapid growth kinetics

- ▶ Intraop fetal monitoring, consented for emergency C-section
- ▶ OB team on standby
- ▶ Modified RSI with propofol and rocuronium, ETT
- ▶ External fetal monitoring
- ▶ Sterile fetal monitoring successful despite insufflation & robot
- ▶ Fetal heart tracings within normal limits throughout
- ▶ Extubated in OR, discharged to home on POD #2
- ▶ Path: Leiomyoma w/ hyaline degeneration, focal infarction

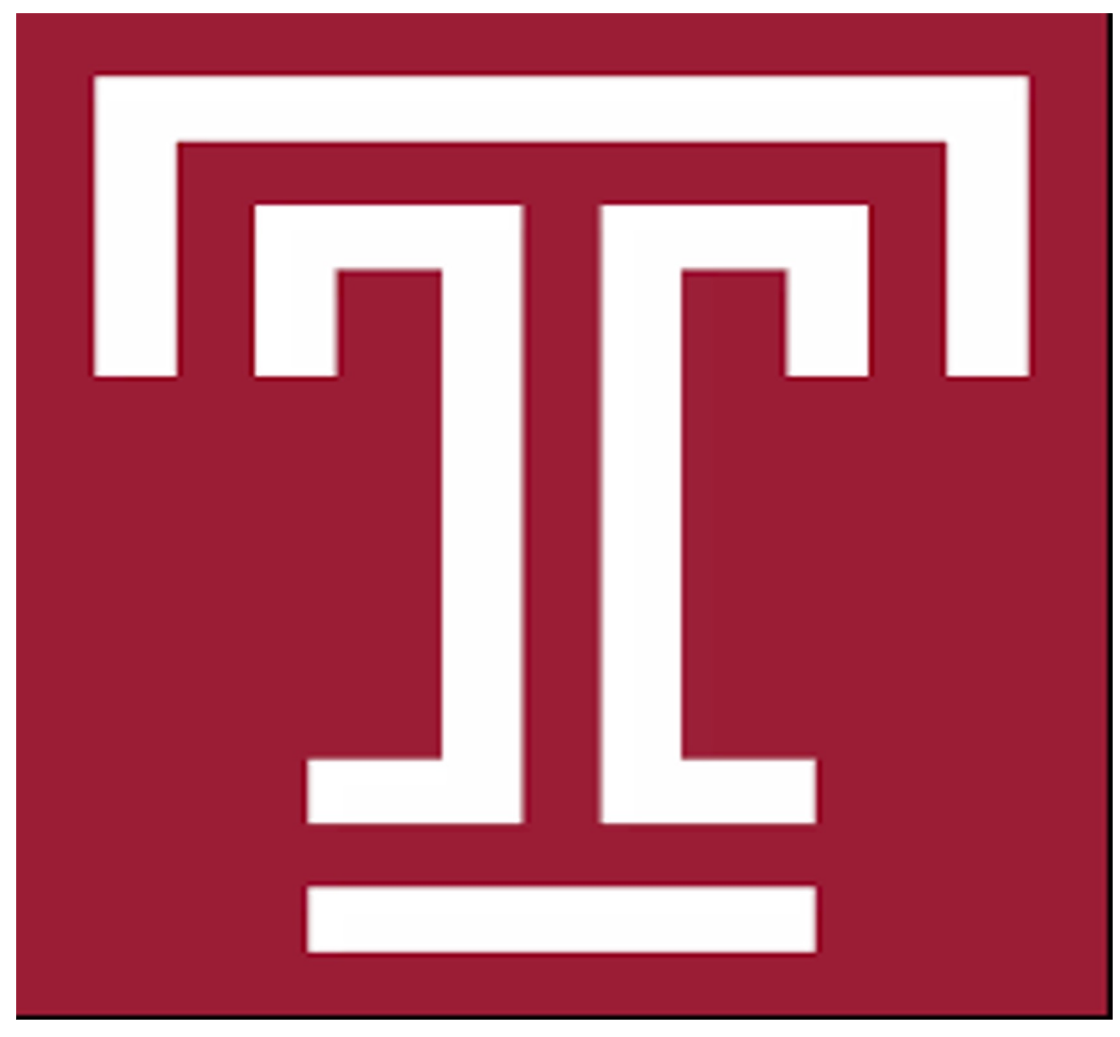


Intraop fetal monitoring, 31w1d



Multidisciplinary Management of a Third Trimester Parturient with a Rapidly Expanding Renal Mass Undergoing Radical Nephrectomy

Jake Graffe, DO; Jack Peace, MD; Diana Feinstein, DO
Temple University Hospital, Philadelphia, PA



Discussion

- ▶ Gold standard for localized renal masses is **surgical excision**¹
- ▶ Mean RCC growth rate ~0.8 cm/year²
- ▶ Special considerations for parturients having non-OB surgery
- ▶ Robot ultrasound probe can be considered for fetal monitoring³
- ▶ 2nd trimester preferred: **↑ teratogenicity, spontaneous abortion (1st trimester); ↑ preterm labor (3rd trimester)**
- ▶ Parturient factors: **Difficult MV/intubation, aspiration risk, ↑ O₂ consumption, ↓ FRC, supine hypotension of pregnancy**
- ▶ Surgical factors: **Abdominal surgery, insufflation, lateral decubitus position, use of robot, length of surgery**
- ▶ Consider viability of fetus, ease of intraop fetal monitoring
- ▶ Achieved sterile intraoperative fetal monitoring in this case
- ▶ Consider growth kinetics of mass
- ▶ Multi-disciplinary approach strongly recommended
- ▶ **Must** consider all non-surgical options
- ▶ **Shared decision-making with the patient**

References

1. *Clin Transl Oncol.* 2018; 20(1): 47–56
2. *J Formos Med Assoc.* 2016 Jun;115(6):463-9
3. *Future Sci OA.* 2021 Mar; 7(3): FSO678
4. <https://abdominalkey.com/intraoperative-ultrasound-in-renal-surgery/>



IOUS probe in use during a robotic partial nephrectomy⁴