ROBOTIC CHEST WALL RESECTION FOR EWING'S SARCOMA

ID186

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INTRODUCTION AND AIMS

Challenges of surgical management of Ewing's chest wall sarcoma are:

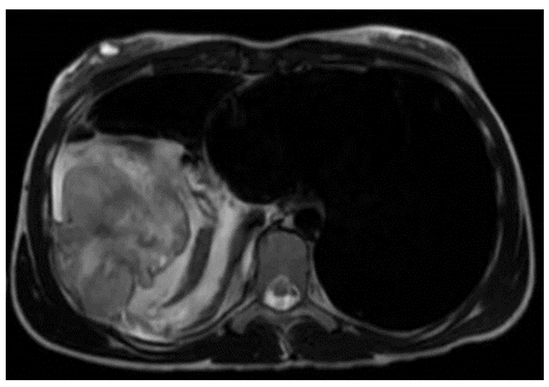
- complex surgical resection: **extensive chest wall resection by complete excision of the affected rib(s)**
  reconstruction
- induction and adjuvant chemotherapy

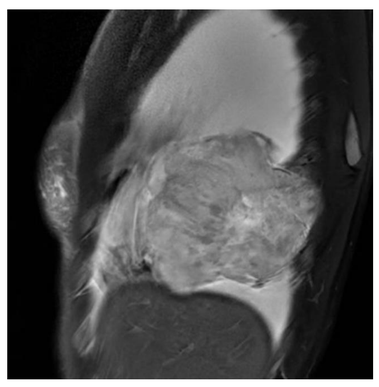
Success can be enhanced by **minimally invasive surgical techniques** in order to **minimize postoperative pain**
preserve soft tissues including the parietal muscles and maintain respiratory function

MATERIALS AND METHODS

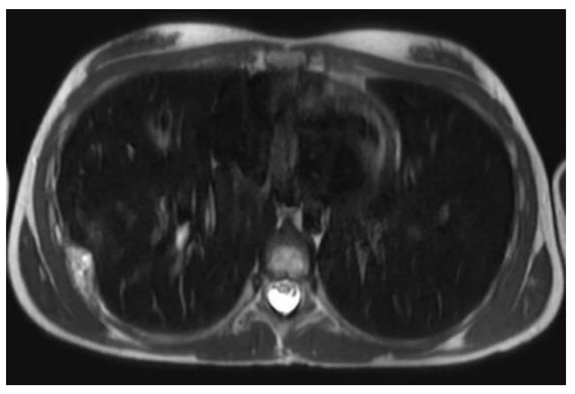
14 years old girl, large thoracic parietal Ewing's sarcoma

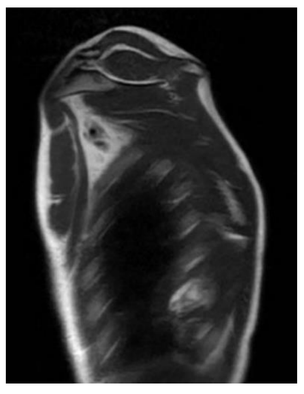
At baseline



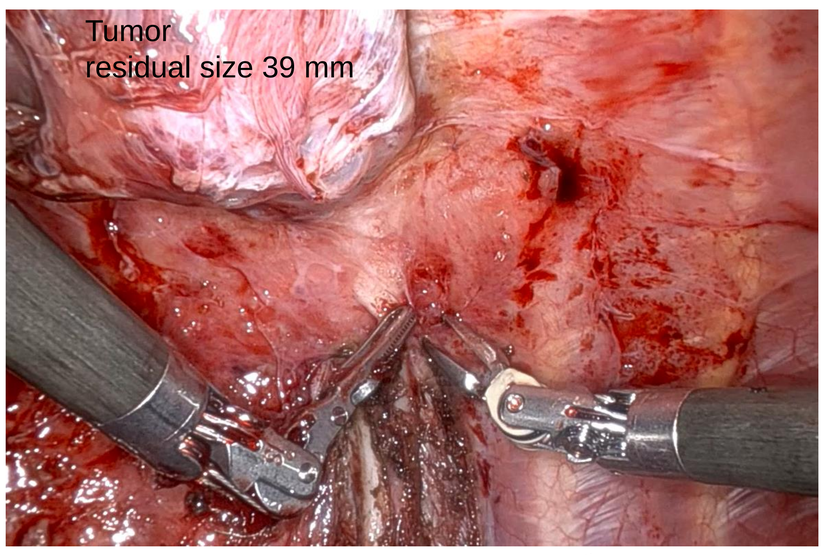


After induction chemo

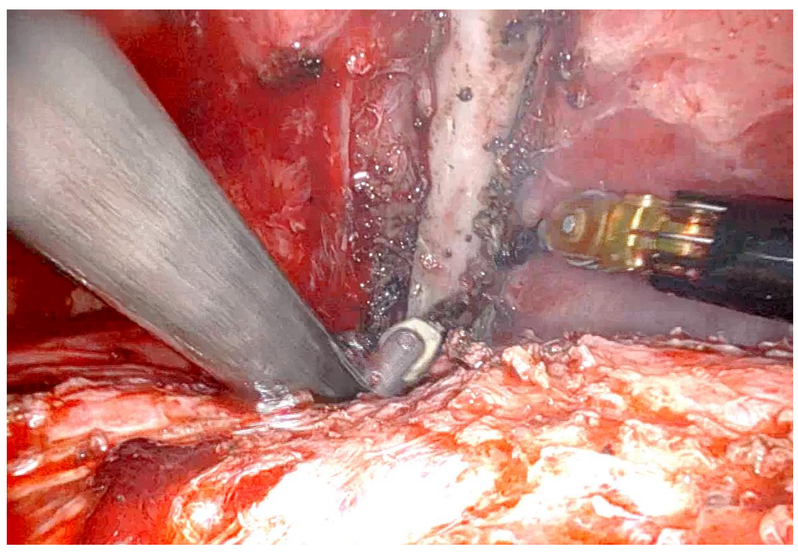




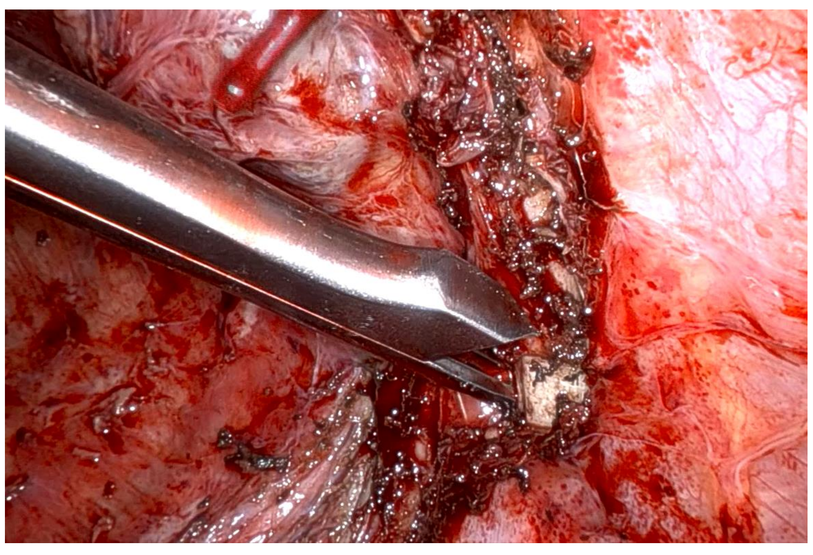
Robotic surgery da Vinci Xi robotic system (Intuitive Surgical ®): both anterior and posterior robotic approaches
"En bloc" chest wall resection of 3 consecutive ribs (7–9)
resection of the 8th rib extending from the costal cartilage to the transverse process



posterior dissection along 8th rib

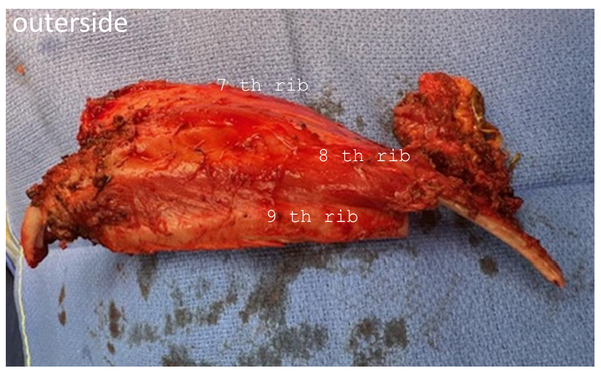


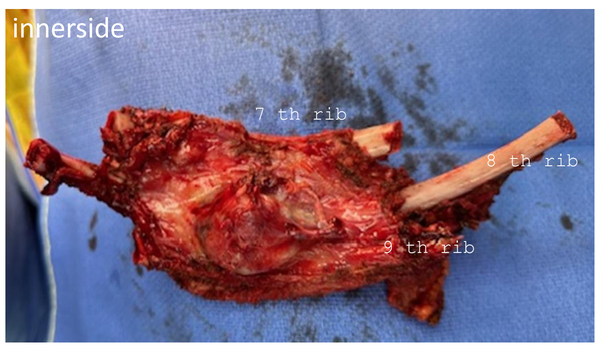
anterior dissection along 8th rib



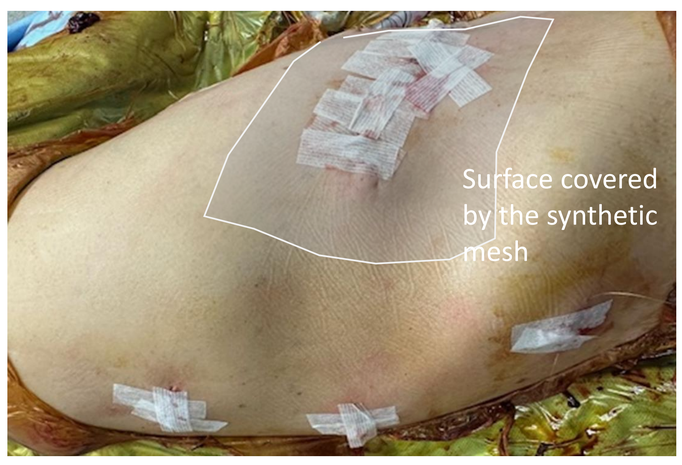
anterior rib section with endoscopic Kerrison

chest wall was reconstructed using synthetic mesh, securely sutured under tension to the adjacent ribs





RESULTS



3 posterior robotic ports

patient discharged after 7 days
adjuvant therapy initiated on the 17th postoperative day

R0 resection

Only 8 cm skin incision

CONCLUSIONS

Minimally invasive Robotic procedure with anterior and posterior approaches
Safe and successfull chest wall resection and reconstruction
Enabling a favorable surgical recovery

Postoperative 3 months chest CT showing the favorable chest wall reconstruction

Scan me to see the procedure!