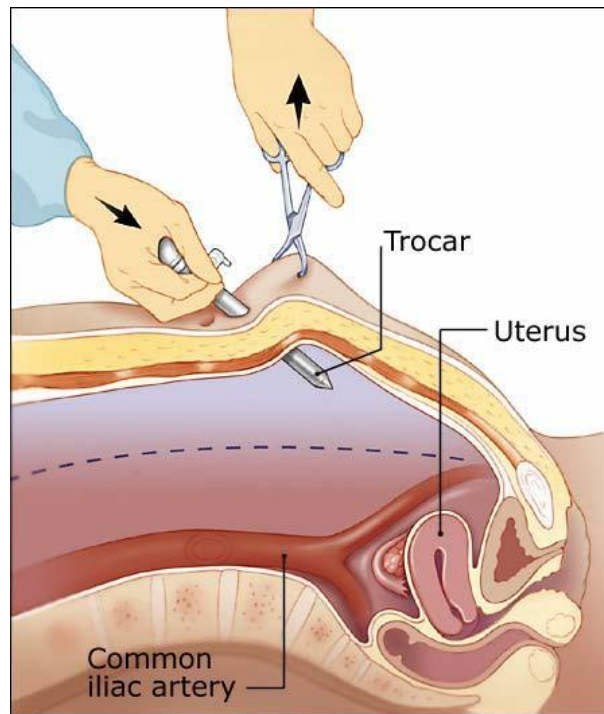
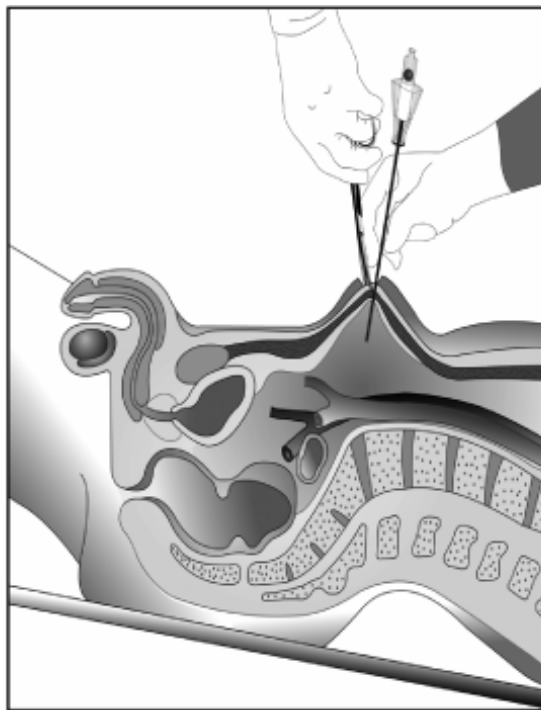


Fundamentals of laparoscopic and robotic urologic surgery

Bum Soo Kim

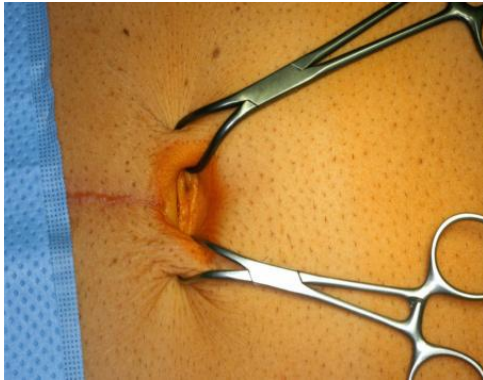
**Department of Urology, School of Medicine,
Kyungpook National University**

Pneumoperitoneum and First trocar



Veress needle technique

• Step 1: Skin incision



• Step 2: Veress needle insertion & position check

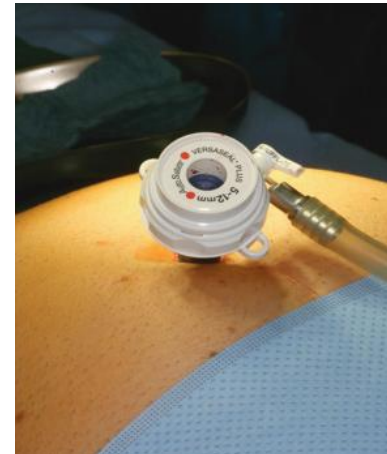
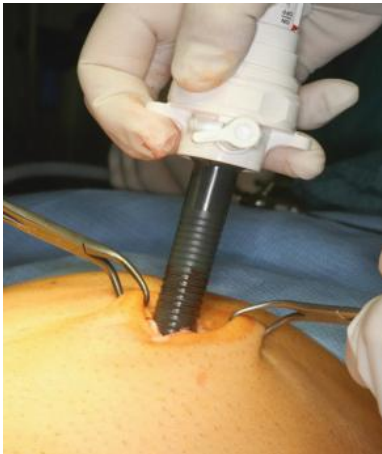


Veress needle technique

• Step 3: Gas insufflation

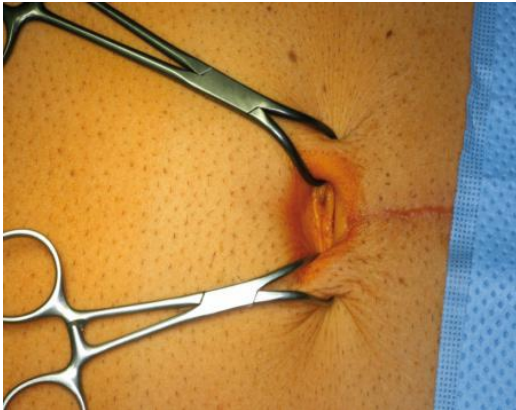


• Step 2: First trocar insertion



Minilaparotomy

• Step 1: Skin incision

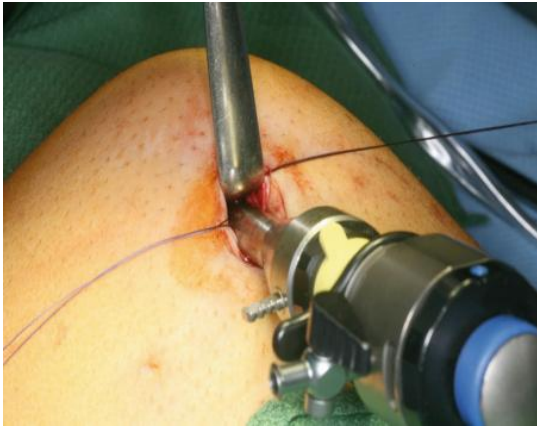


• Step 2: Fascial incision



Minilaparotomy

• Step 3: Optical trocar insertion

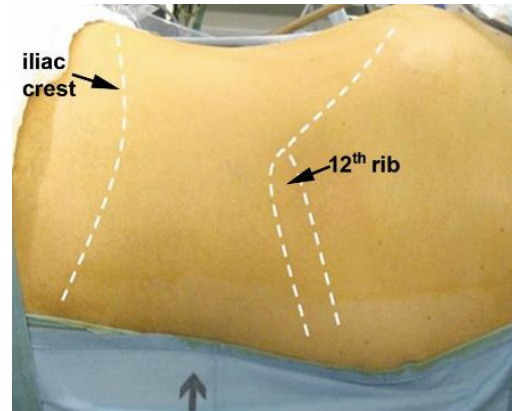
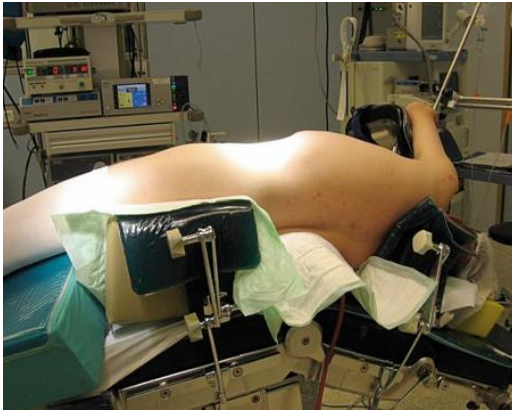


• Step 4: Gas insufflation



Retroperitoneal access

- Step 1: Patient position & anatomical landmarks



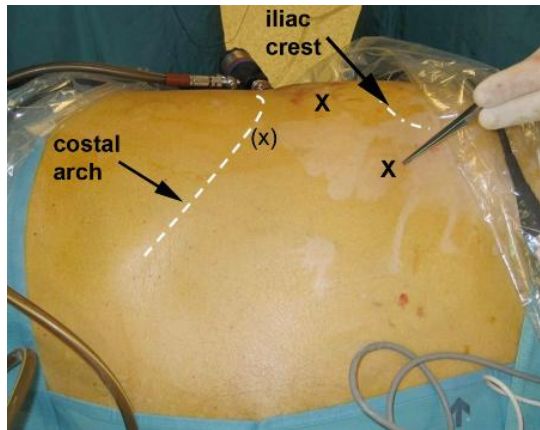
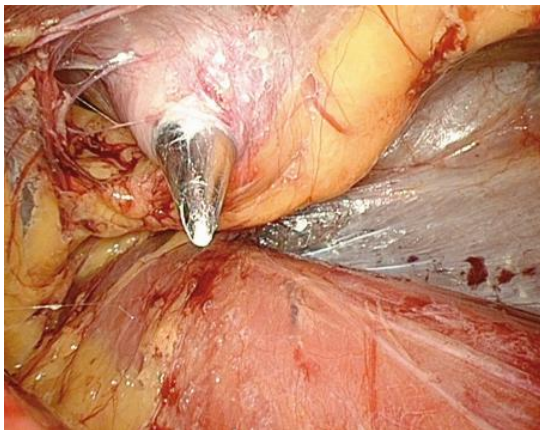
- Step 2: Access to the retroperitoneal space



- Step 3: Dissection of the retroperitoneal space



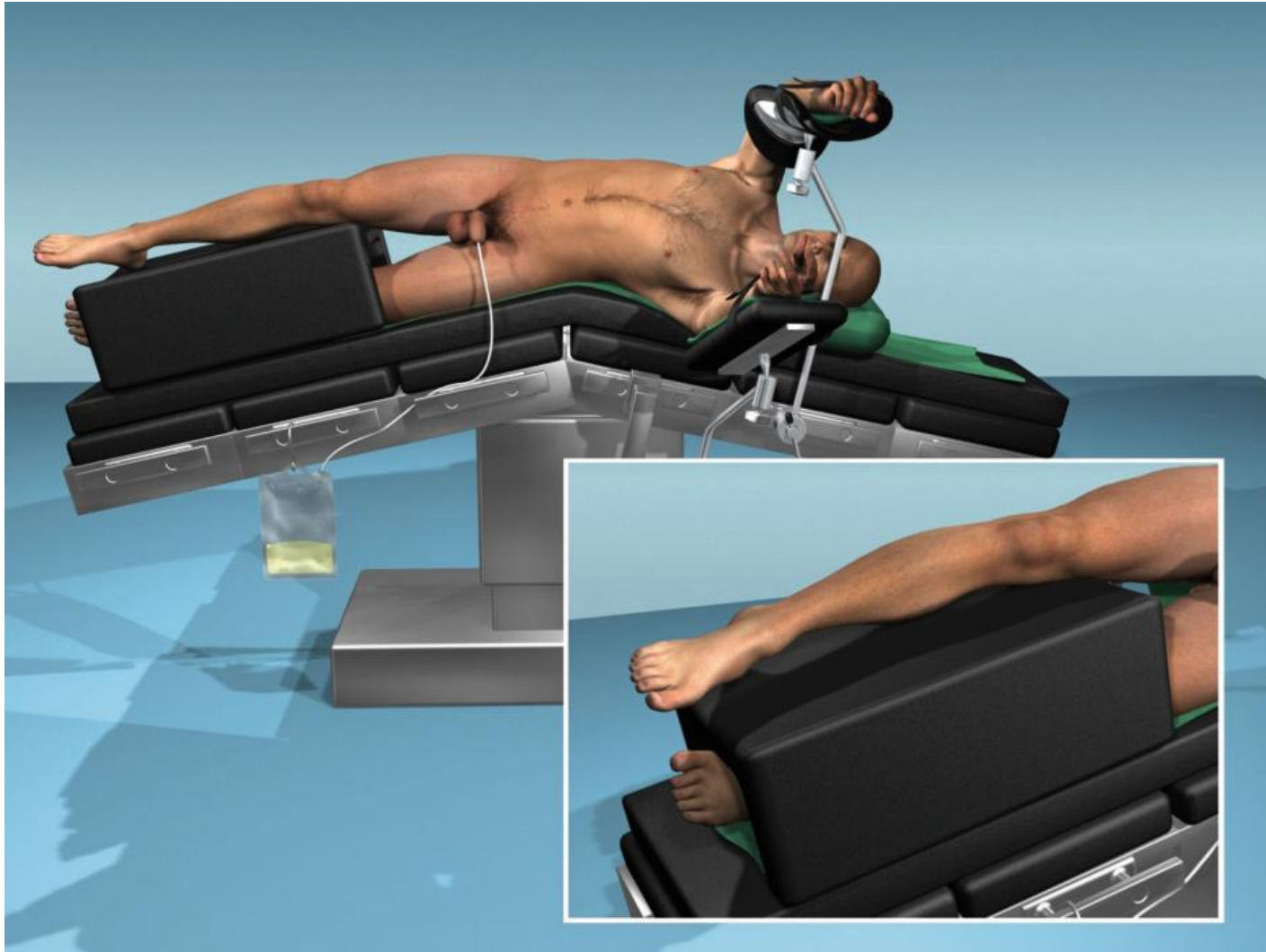
- Step 4: Trocar placement



Kidney, Adrenal gland, Upper ureter

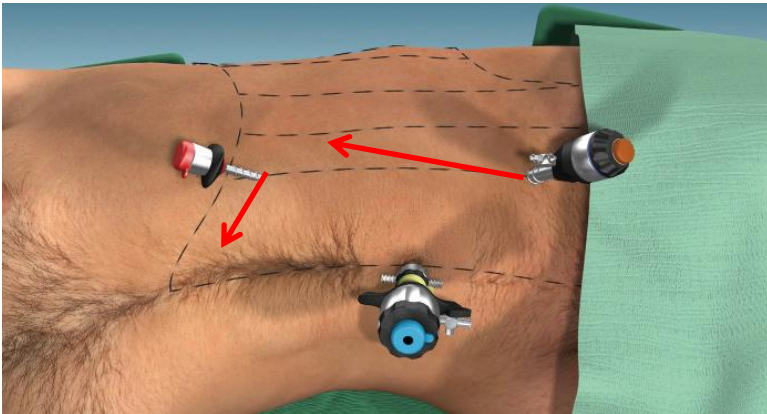


Patient position

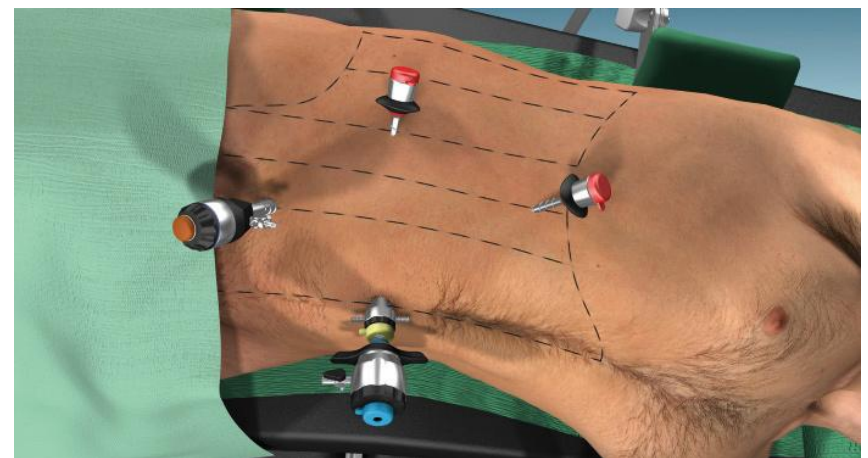
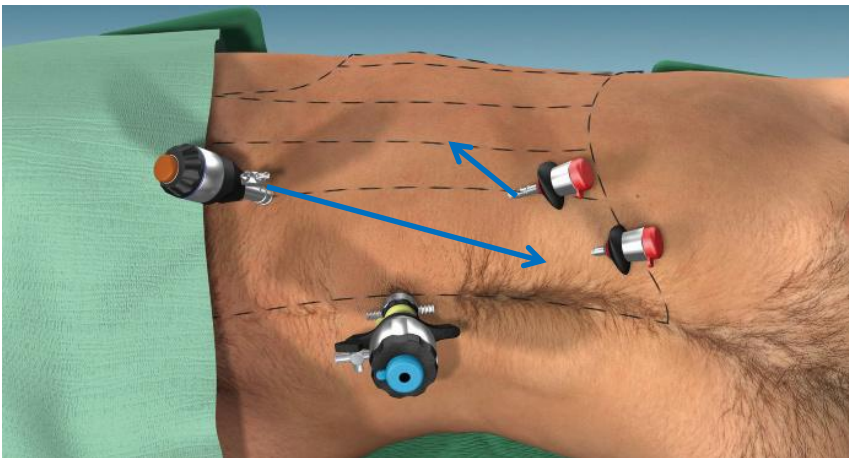


Trocar placement for laparoscopy

- Lt side transperitoneal

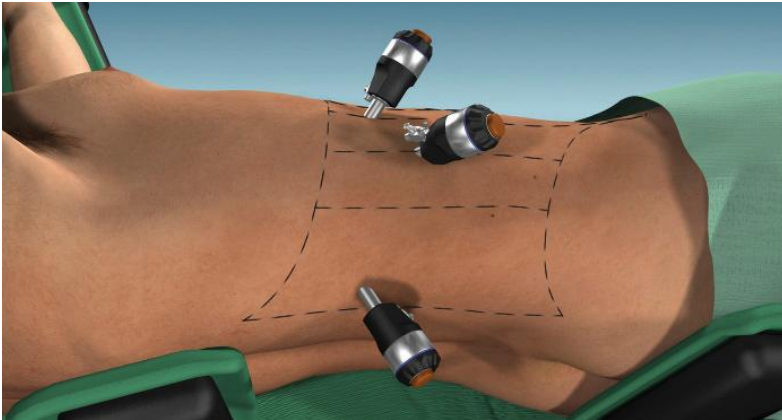


- Rt side transperitoneal



Trocar placement for laparoscopy

- Rt side retroperitoneal

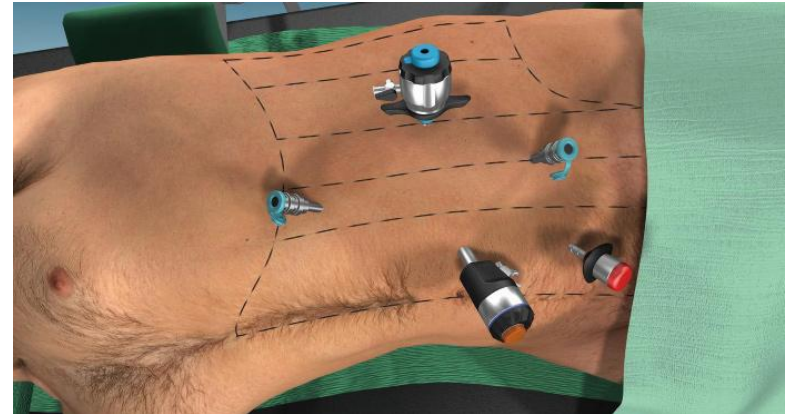
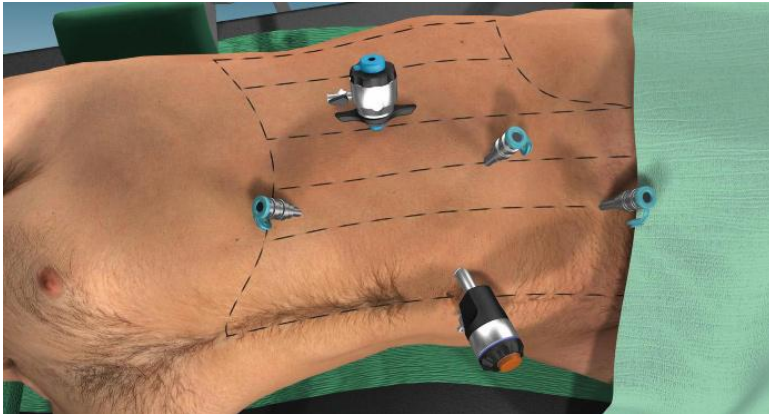


- Rt side LESS

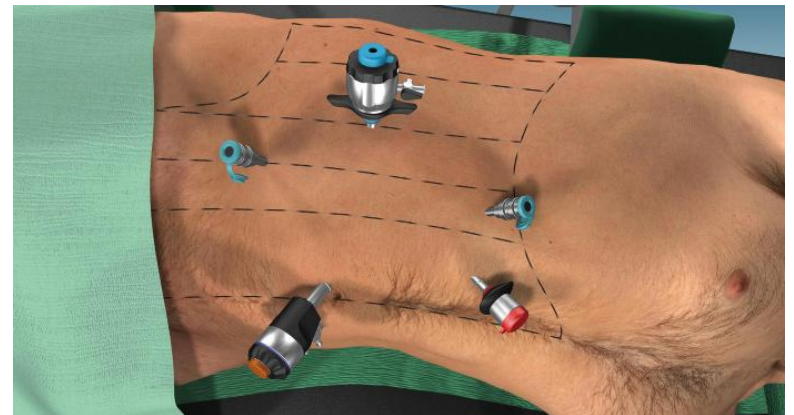
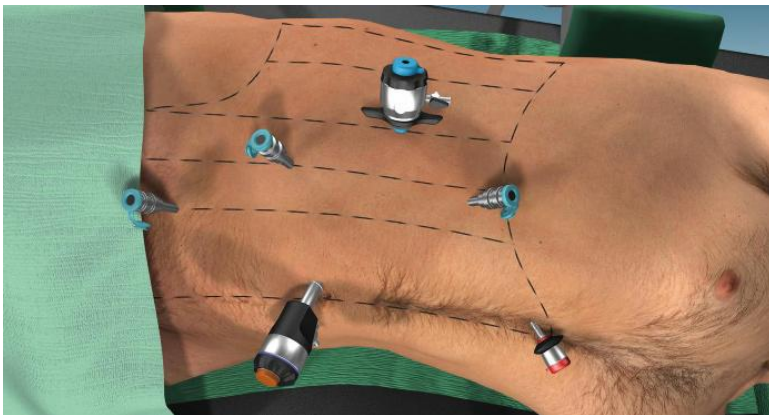


Trocar placement for robot

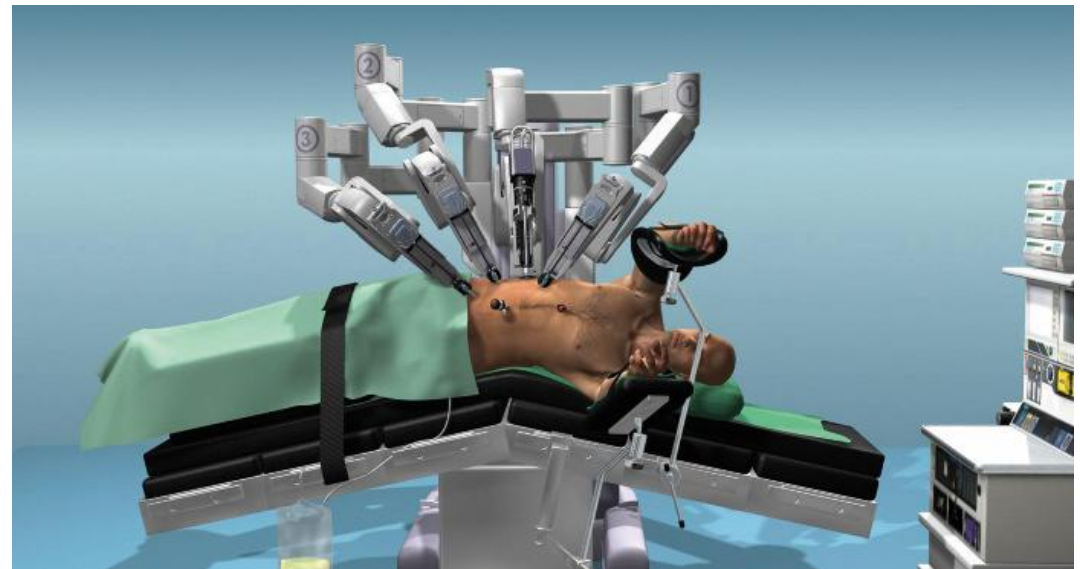
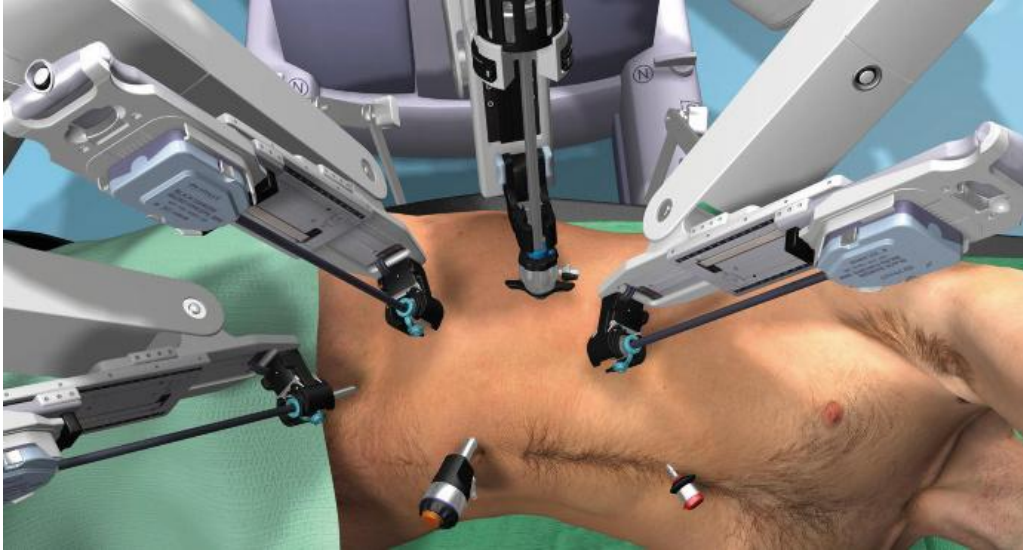
• Lt side



• Rt side



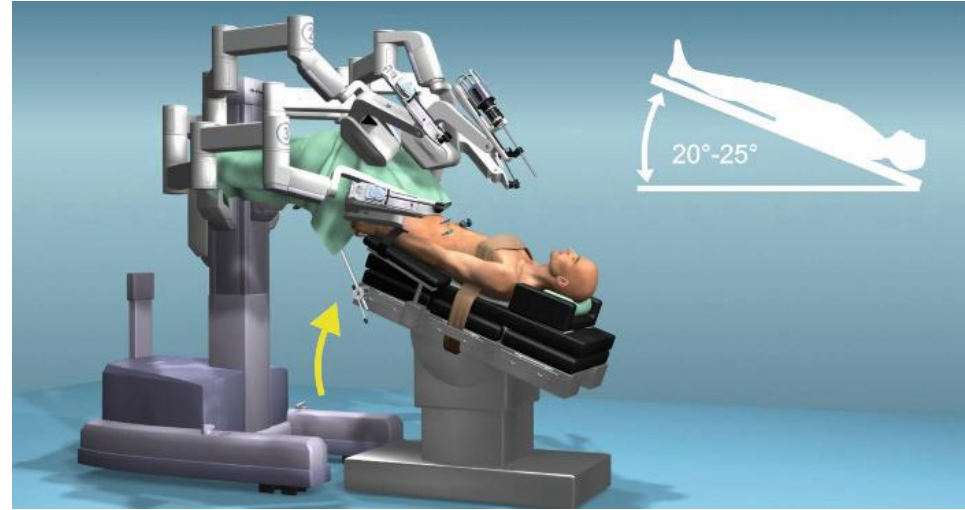
Docking of the robotic arms



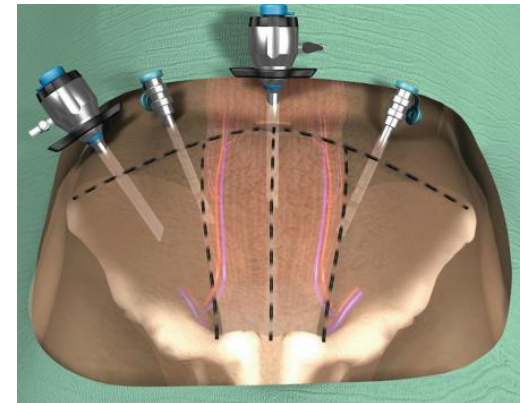
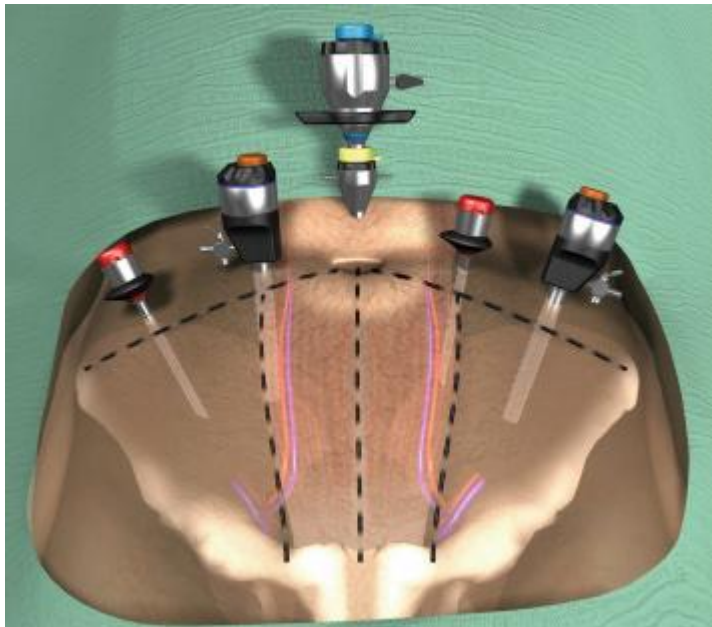
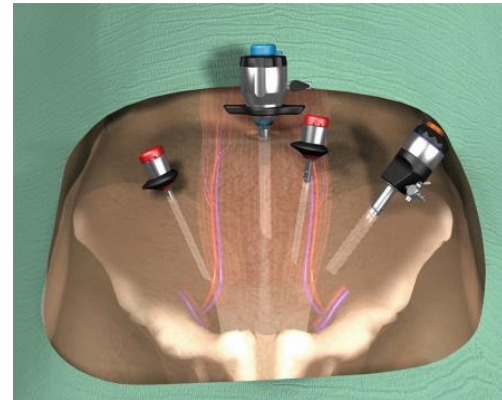
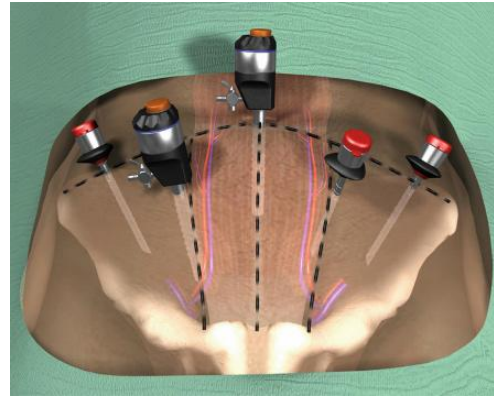
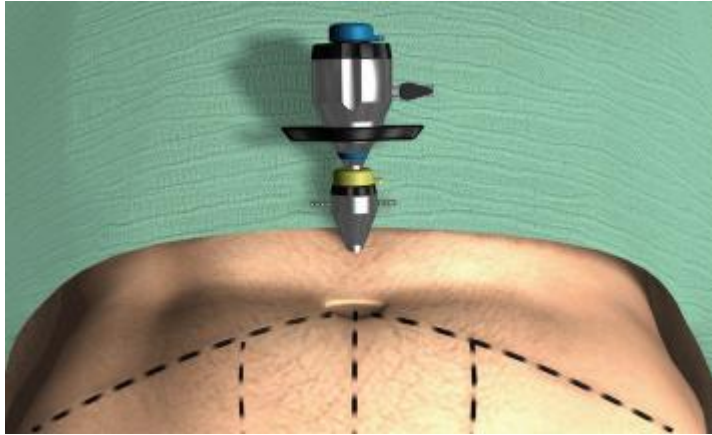
Prostate, Bladder, Lower ureter



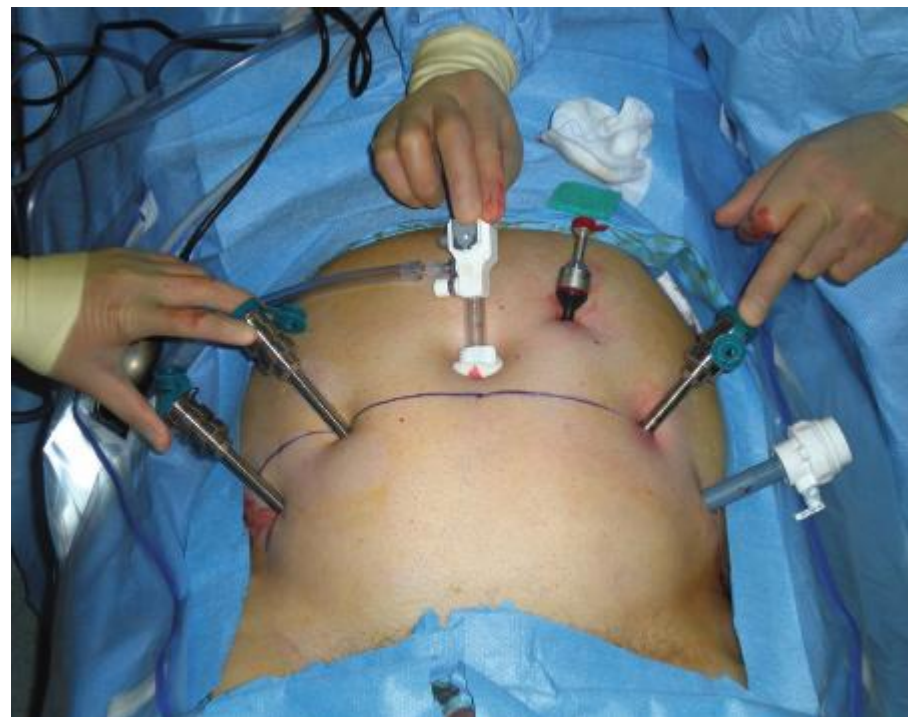
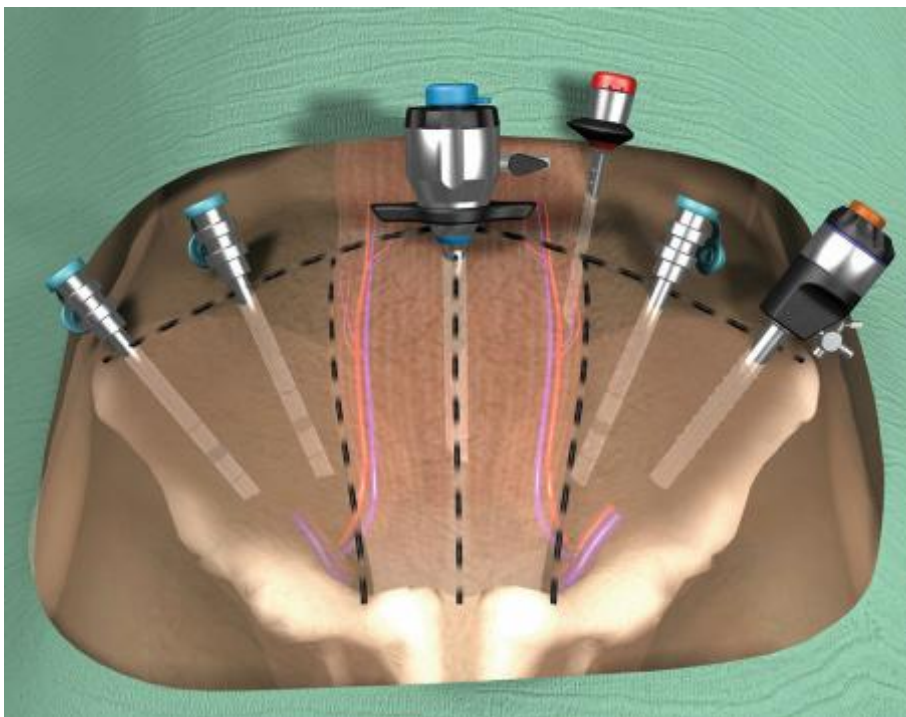
Patient position



Trocar placement for laparoscopy



Trocar placement for robot



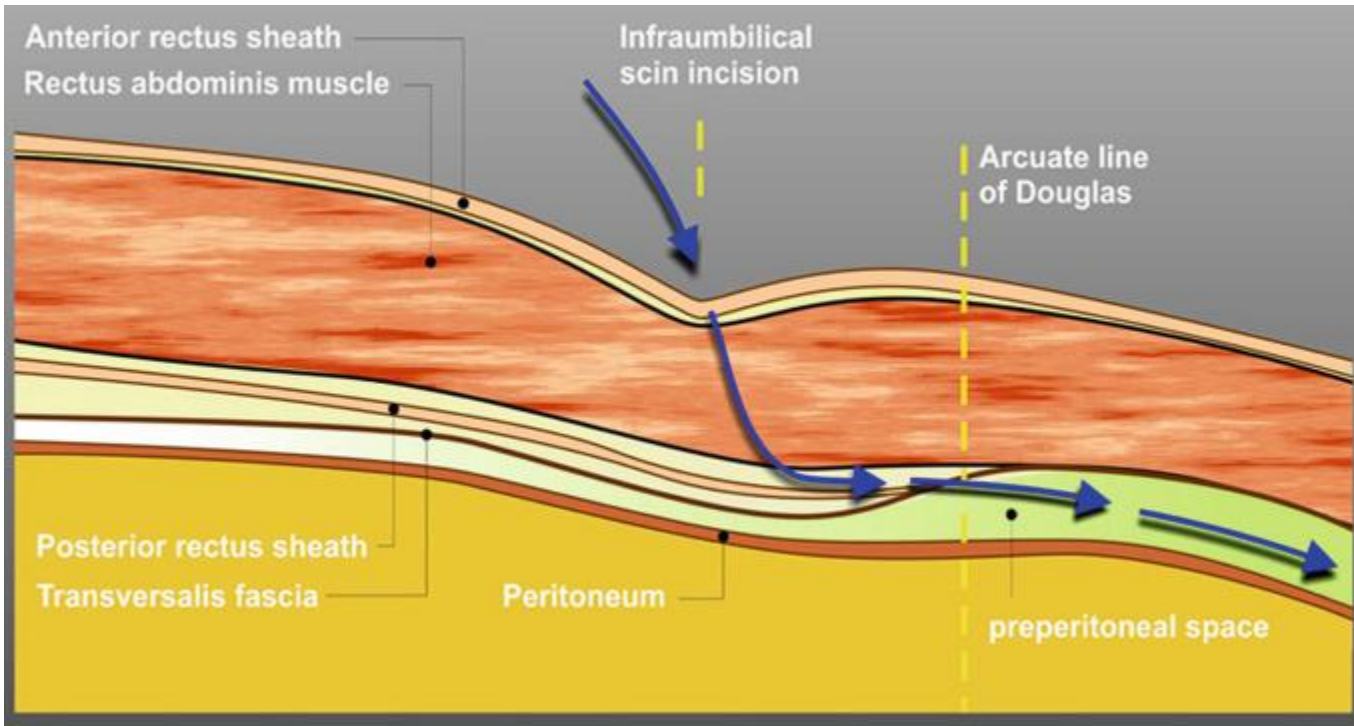
Pistol Type



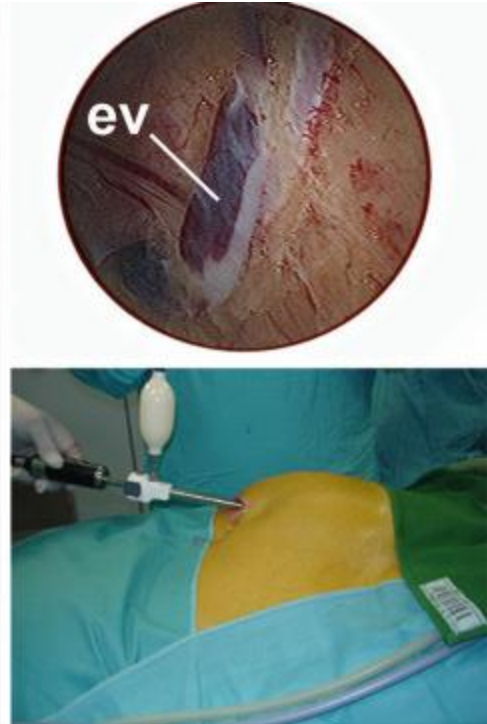
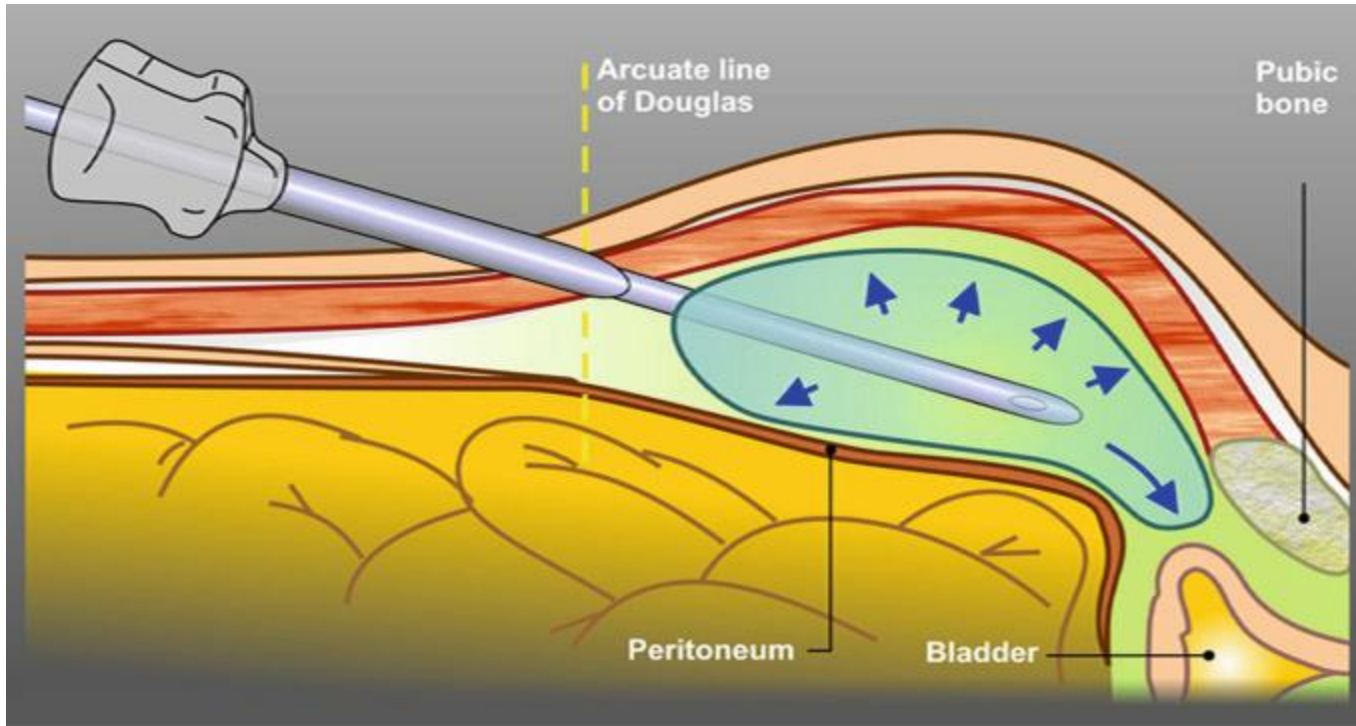
Trumpet Slim Type



Extraperitoneal access



Extraperitoneal access



- Patients should be placed in proper position according to the target organ.
- A very careful step-by-step approach is required for making pneumoperitoneum and insertion of the first trocar.
- Comfortable procedures can be guaranteed by proper trocar placement.



THANK YOU