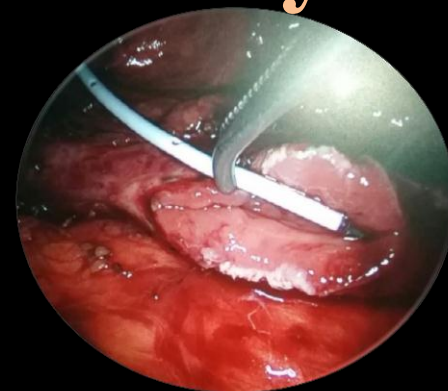
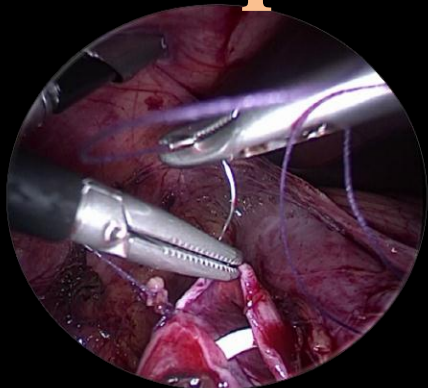
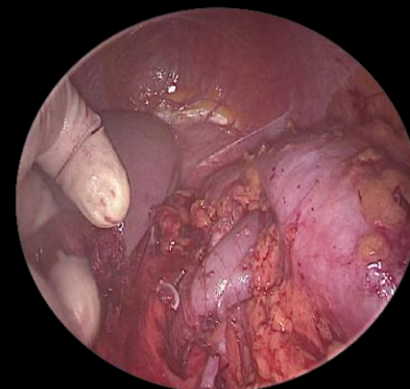
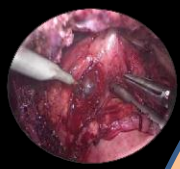


Current Practice of Laparoscopic Urology in Mandalay



Professor Tin Maung Lin





- Laparoscopy has become the major domain of urological surgery in the world
- Mandalay Urology is trying to keep up with the flow



Pioneer

- Laparoscopic procedures initiated in Mandalay by Prof. U Toe Lwin in 2003



Challenges

- OT and instruments shared with general surgery
- Basic laparoscopic set only
- No special energy device
- No HD monitors and cameras
- Limited man power and resources
- Routine procedures postponed for laparoscopic procedures

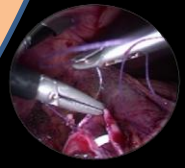


- Low volume of cases
- Prolong operation time
- Few cases of open conversion
- Yet reconstructive procedures tried
- Laid a very good foundation

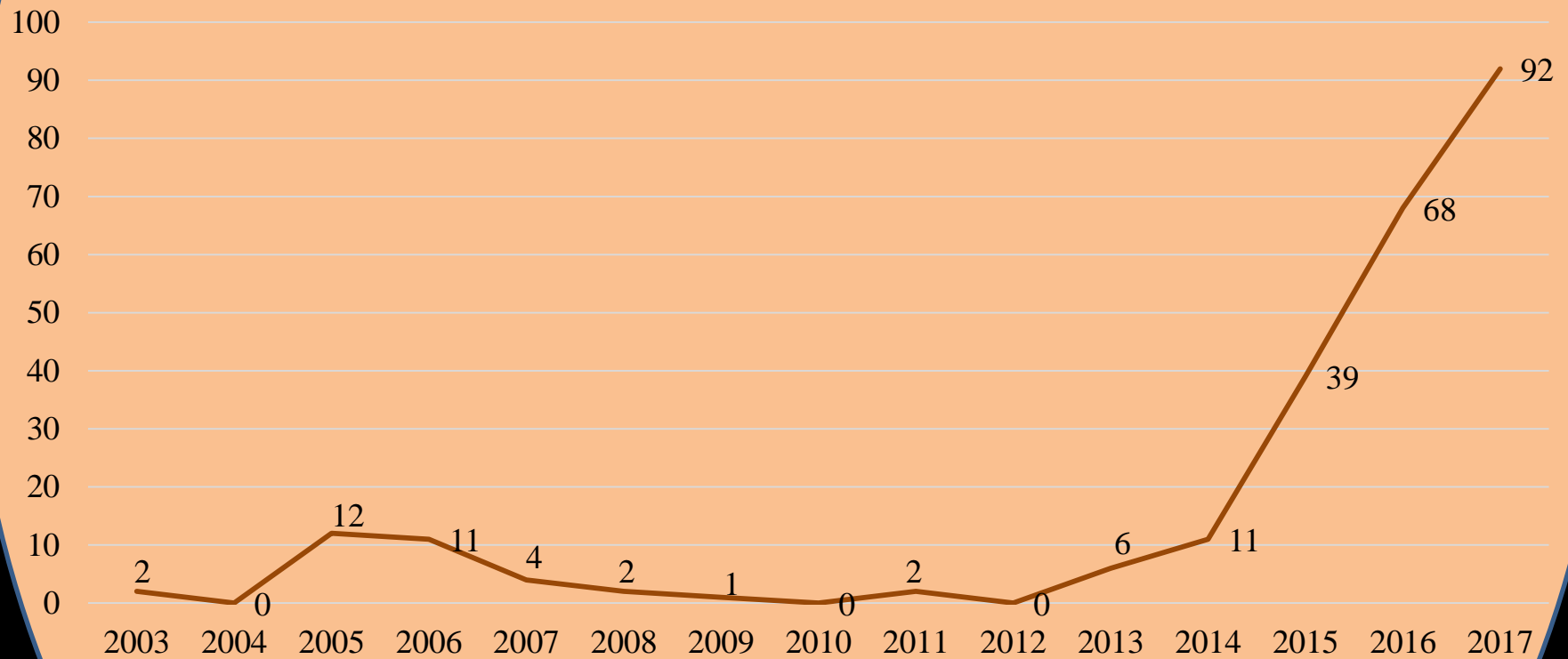


In 2014

- Operating theatre upgraded to 3-room OT which was fully equipped with
 - Two basic laparoscopic sets with HD cameras and monitors
 - Harmonic scalpel
 - Sonicision
 - Hem-o-lock
- Tried to perform more laparoscopic procedures



Data



Approaches

- Transperitoneal approach
- Hand-assisted approach
- Retroperitoneal approach



Ports positions

- No hard and fast rule
- Three ports should form an isosceles triangle
- Be careful that instruments do not fight
- Should be in ergonomic positions



Energy devices

- Do help in the dissection
- But not a must-have



Thunderbeat



Sonicision

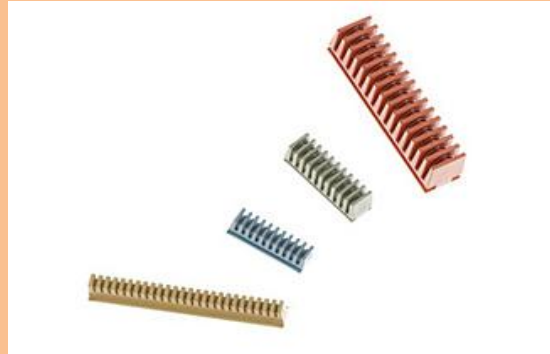


Harmonic scalpel

Accessories



Hem-o-lok



Metal clips



Vascular stapler



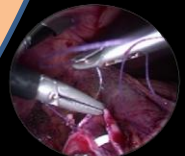
Procedures performed in Mandalay

Ablative procedures

- Simple nephrectomy
 - Radical nephrectomy
 - Nephro-ureterectomy
 - Hand-assisted nephrectomy
 - Partial nephrectomy
 - Adrenalectomy
 - Ureterolithotomy
 - Pyelolithotomy
 - Excision of renal cyst
 - Varicocelectomy
- 
- 
- 

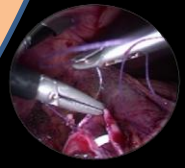
Simple Nephrectomy

- For non-functioning kidney
- Transperitoneal or retroperitoneal
- Preoperative drainage in hydronephrotic kidney



Radical Nephrectomy

- Malignant tumour less than 7 cm
- ?? 7 to 10 cm tumour
- > 10 cm – better to do open surgery
- < 4 cm – partial nephrectomy
 - warm ischaemic time
 - intracorporeal suturing skill
 - laparoscopic ultrasound probe



Nephro-ureterectomy

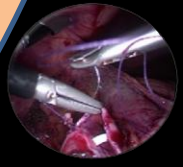
- TCC in renal pelvis or ureter
- Preceded by the endoscopic resection of the ureteric orifice
- Extra port needed for the dissection of lower ureter



Hand-assisted nephrectomy



- Variant of transperitoneal laparoscopy
- Use surgeon's hand or assistant's hand
- Exposure of structures, retraction and dissection much easier
- Provide tactile sensation
- Shorter operation time



Nephrectomy

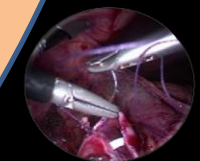
Tips

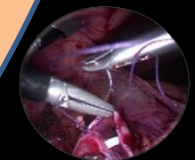
- The initial step is mobilization of colon
- Do not dissect the lateral aspect of kidney first
- Search for the ureter
- From the course of ureter, identify the hilum
- Control renal artery and vein
- Then the job is done!!!

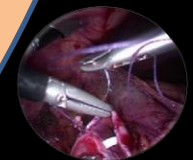


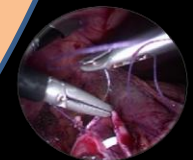
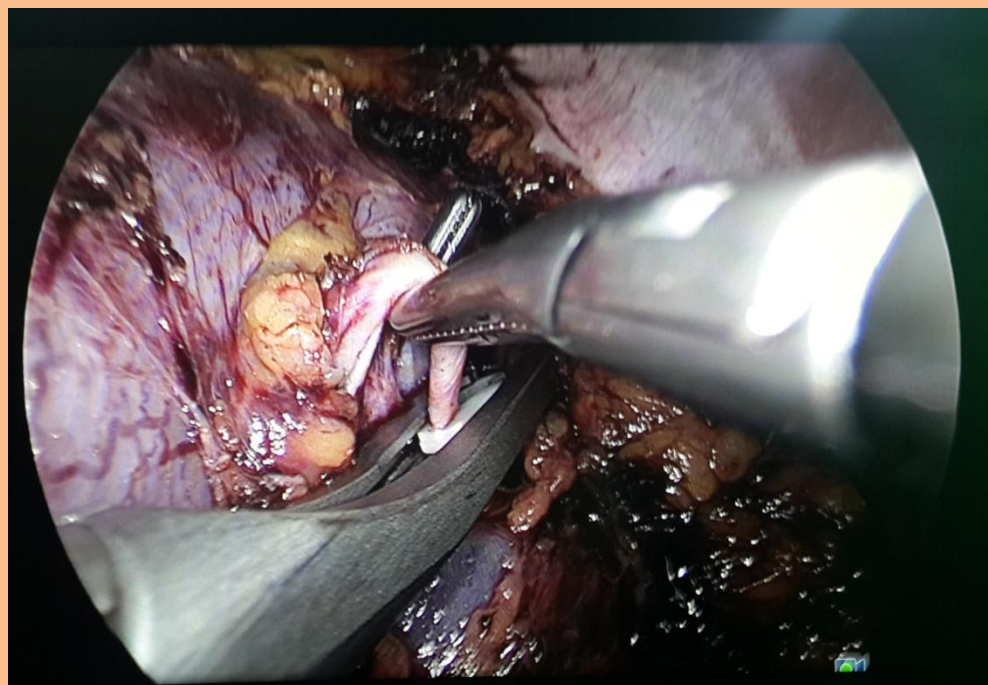


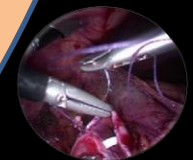
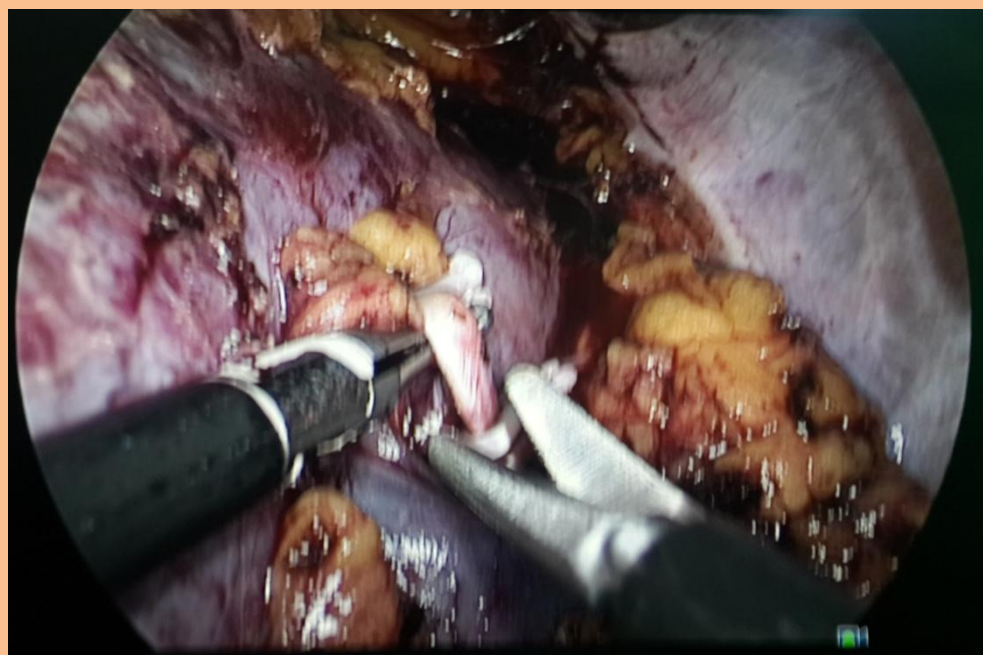
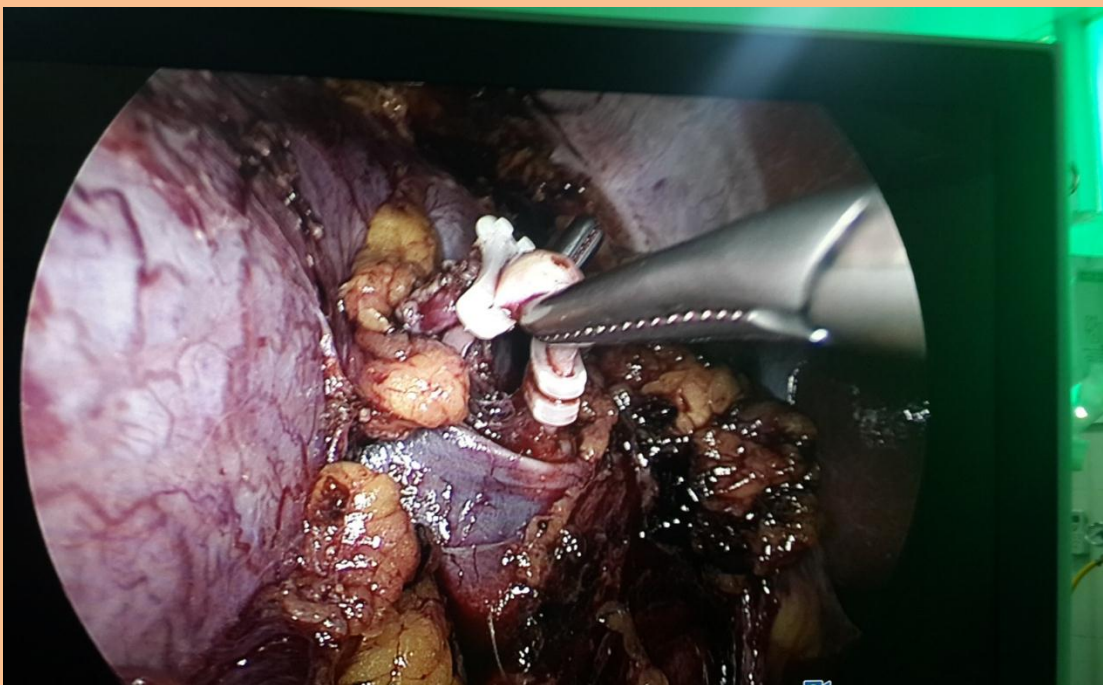
Year	Nephrectomy	Nephro- ureterectomy	Hand-assisted nephrectomy
2015	25	-	-
2016	23	2	14
2017	39	4	3



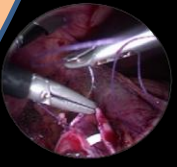






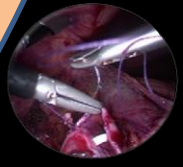


Nephrectomy

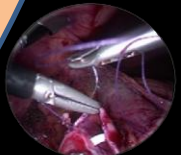


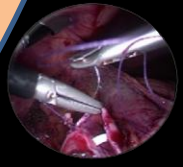
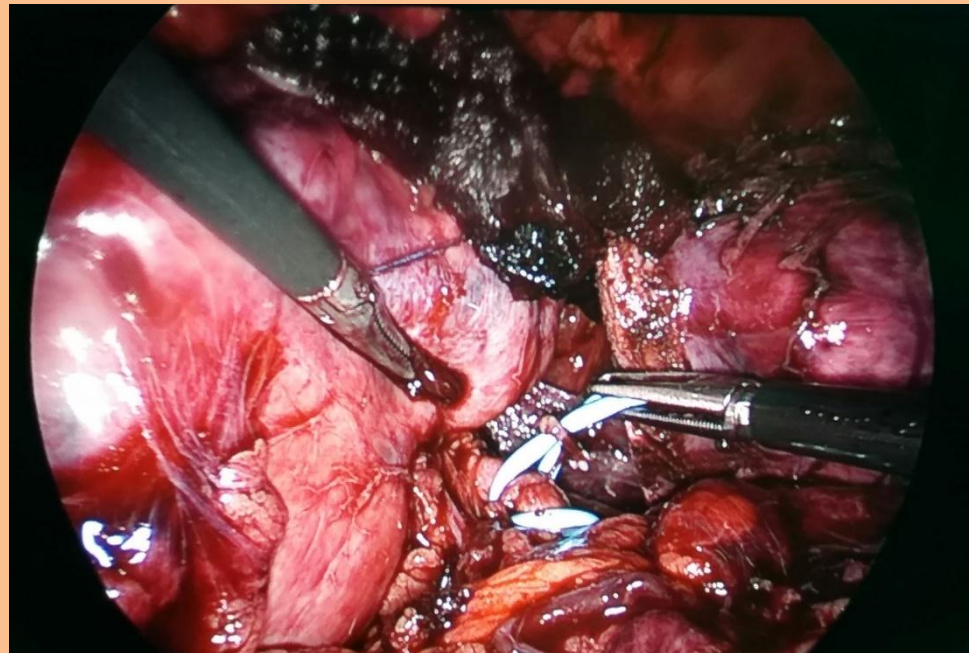
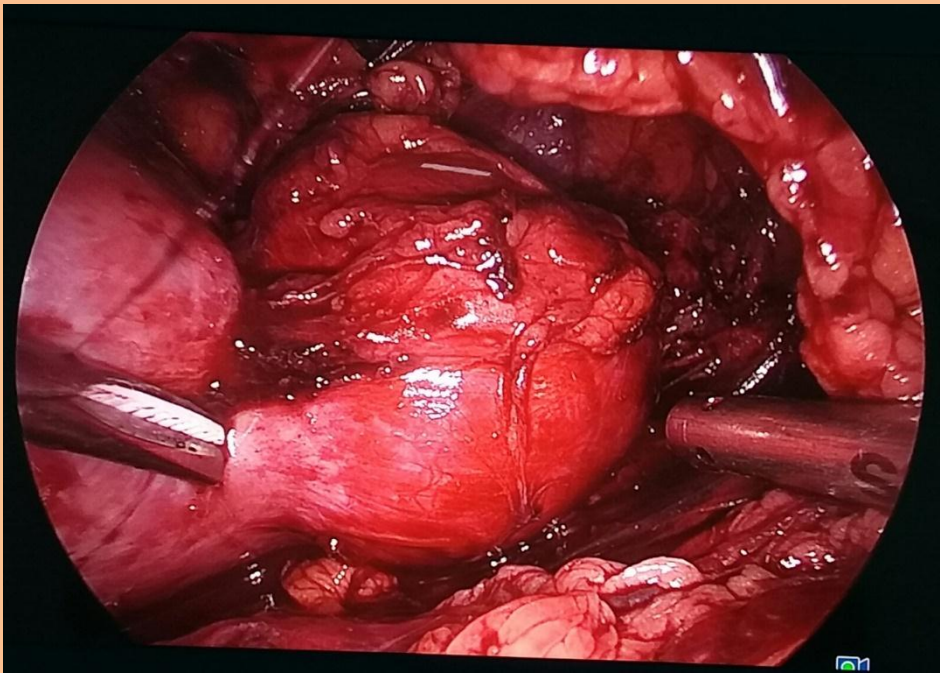
Partial Nephrectomy

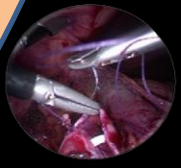
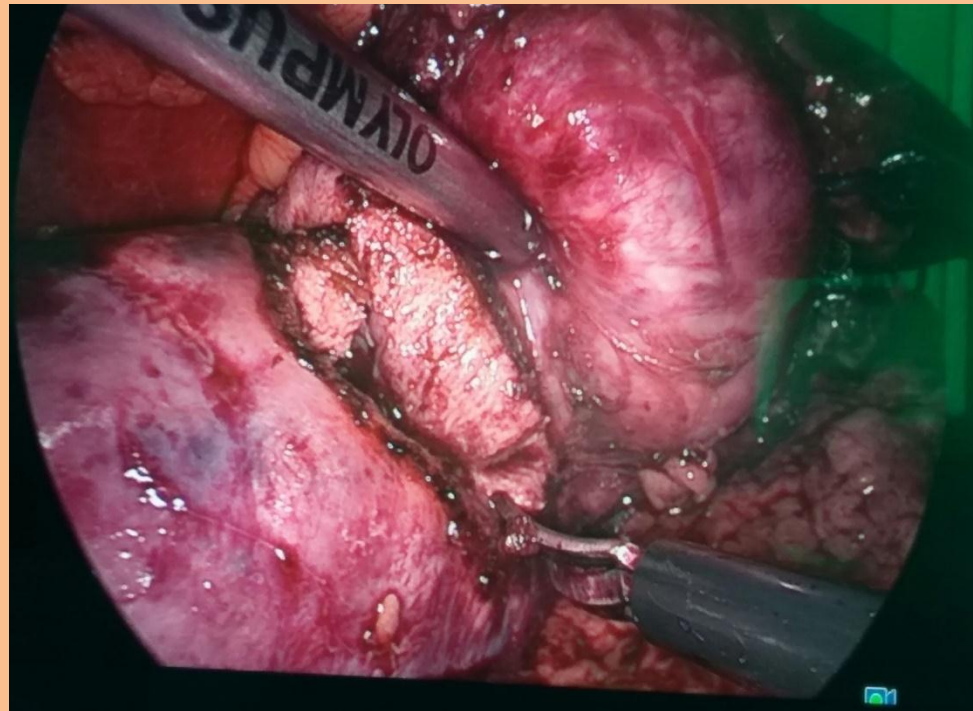
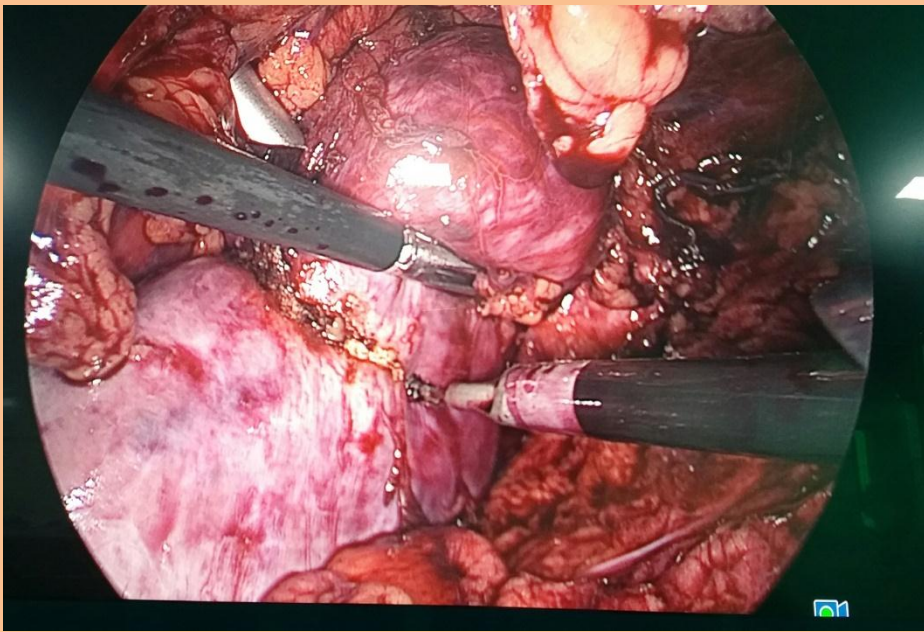
- Gold standard for small renal mass (<4cm) situated in polar regions or exophytic tumors

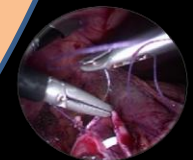
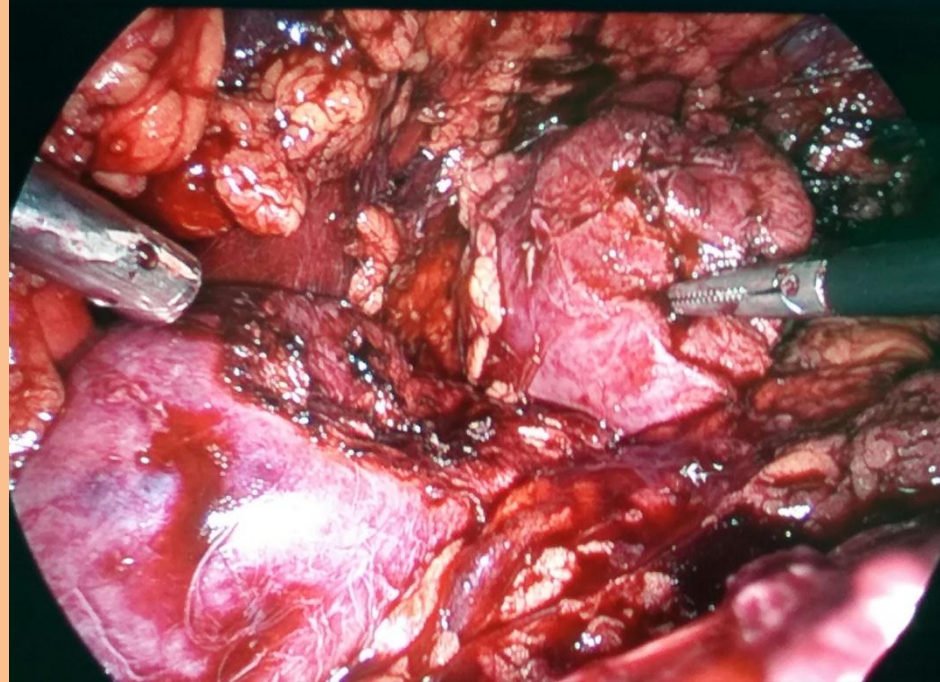
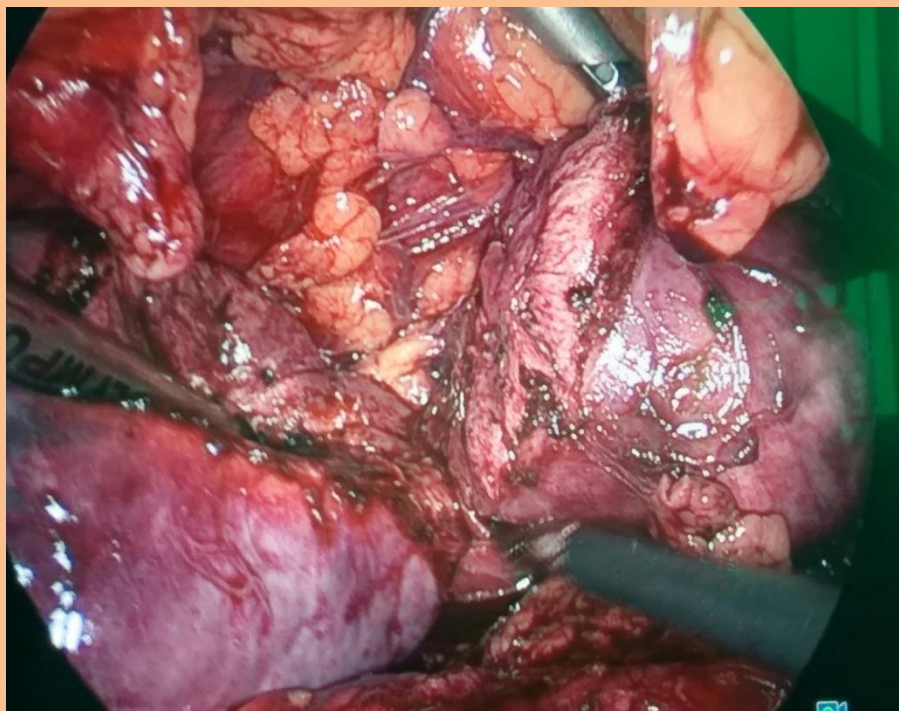


Partial Nephrectomy









Adrenalectomy

- Functioning adrenal lesions
- Suspicious malignant lesions of relatively small size (< 6 cm)
- Symptomatic nonfunctioning benign lesions
- Transperitoneal or retroperitoneal approach



Adrenalectomy

Tips

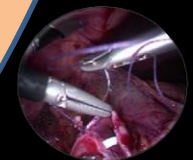
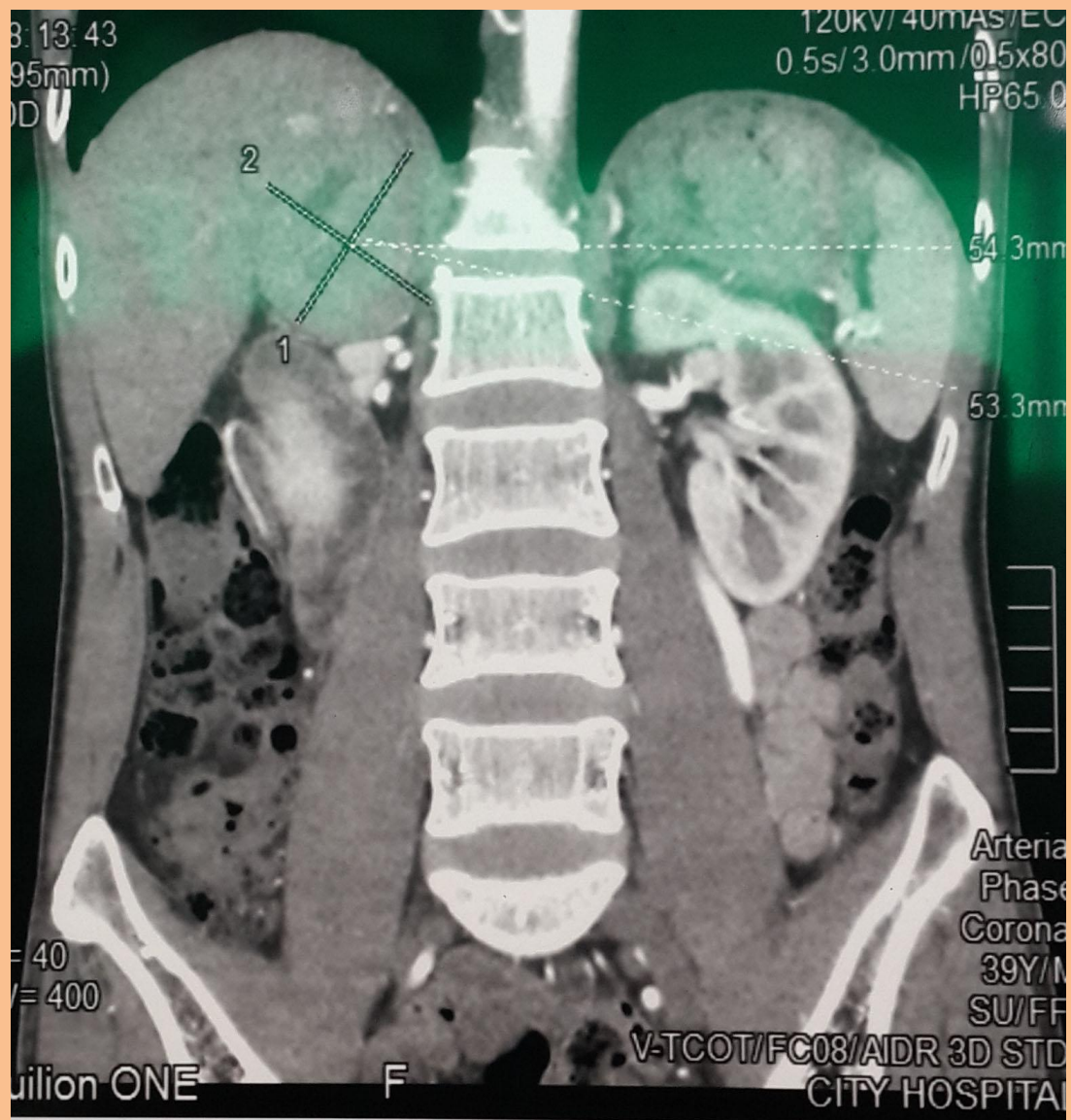
- First identify
 - IVC in right
 - Renal vein in left
- Then clamp and cut the adrenal vein
- Game over!!!

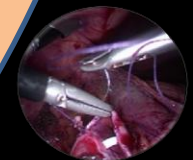
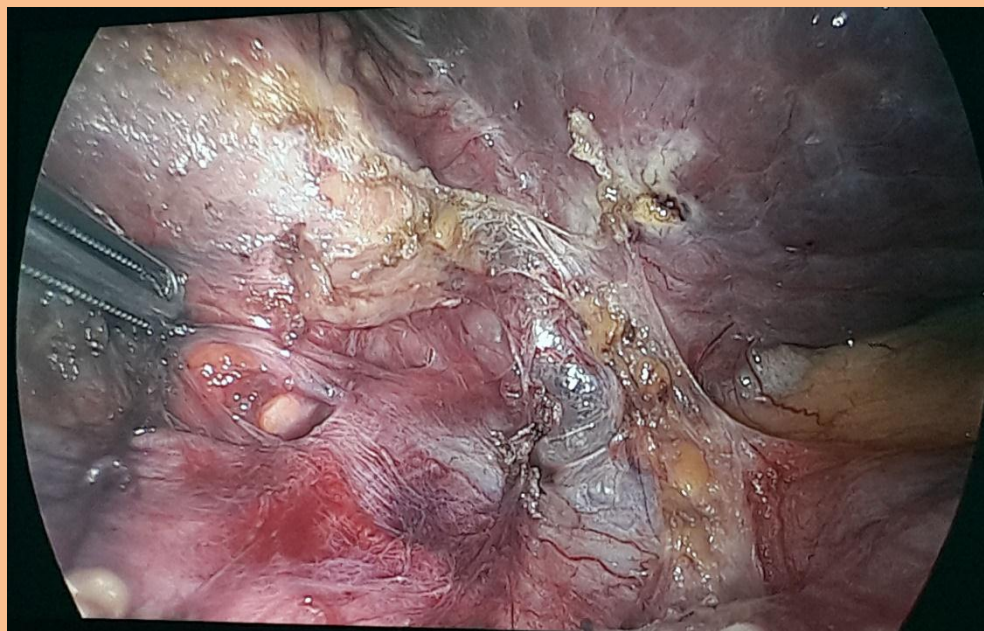
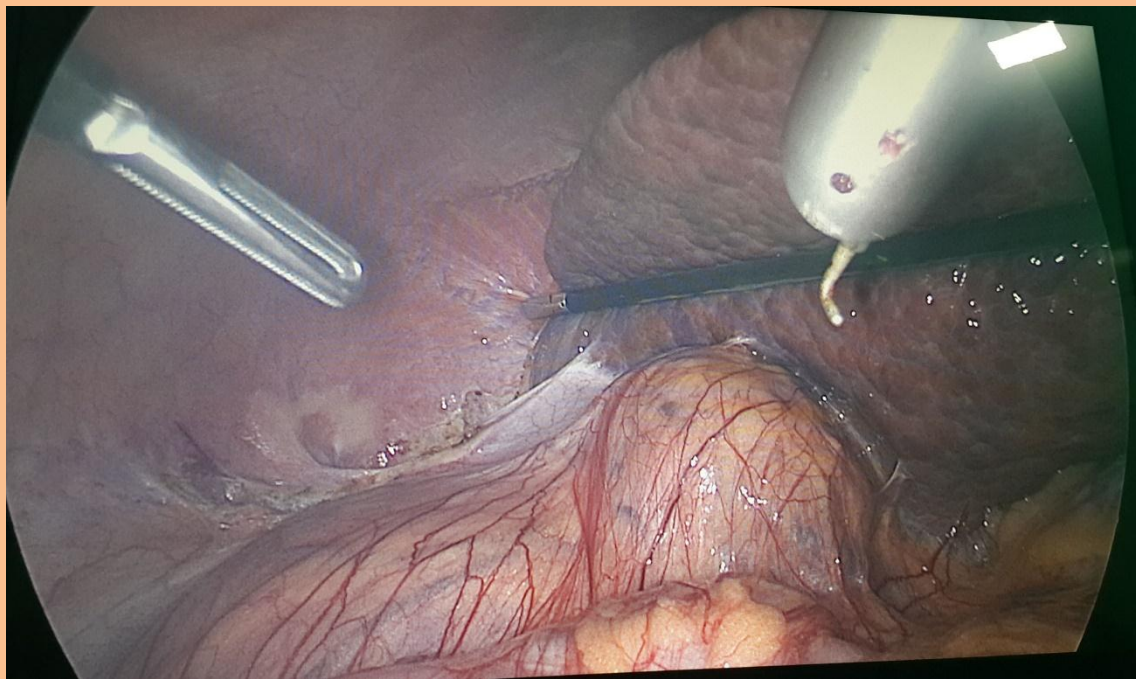


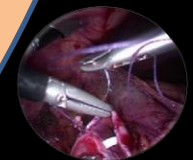
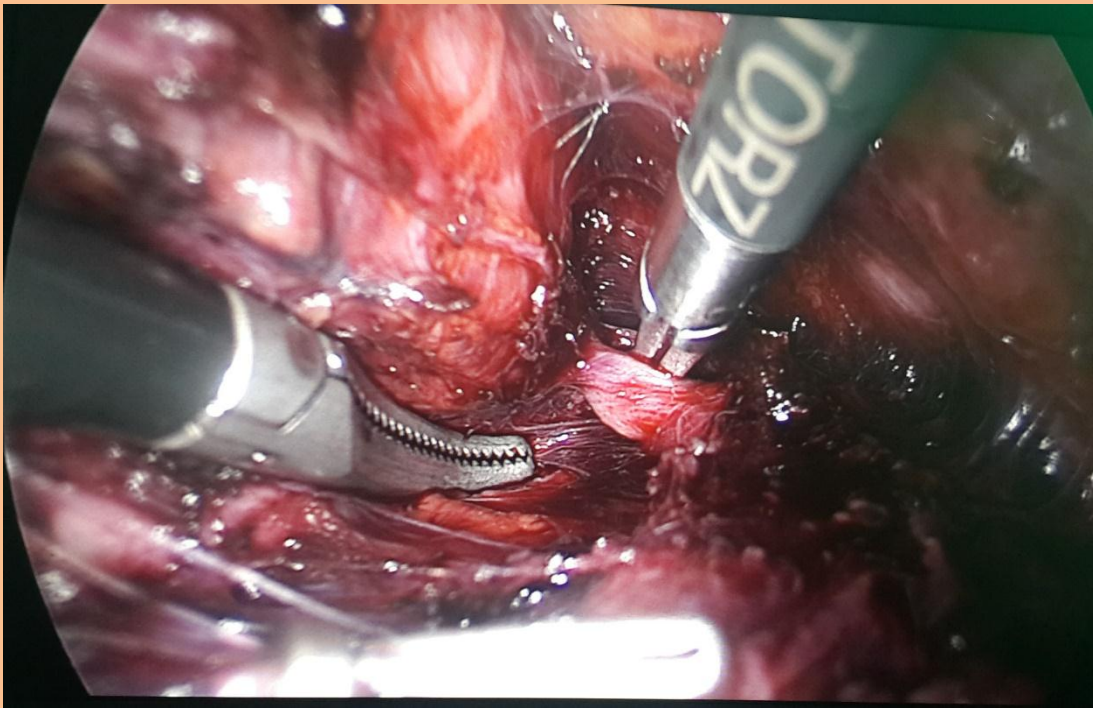
Adrenalectomy

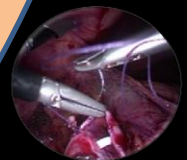
Year	Cases
2015	12*
2016	6 ⁺
2017	5 ⁺

* 2 cases of phaeochromocytoma
+ 1 case of phaeochromocytoma

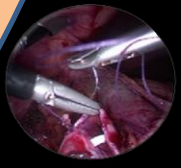








Adrenalectomy



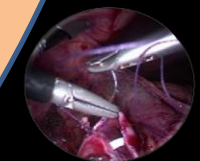
Ureterolithotomy

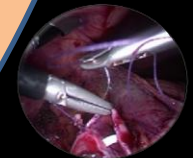
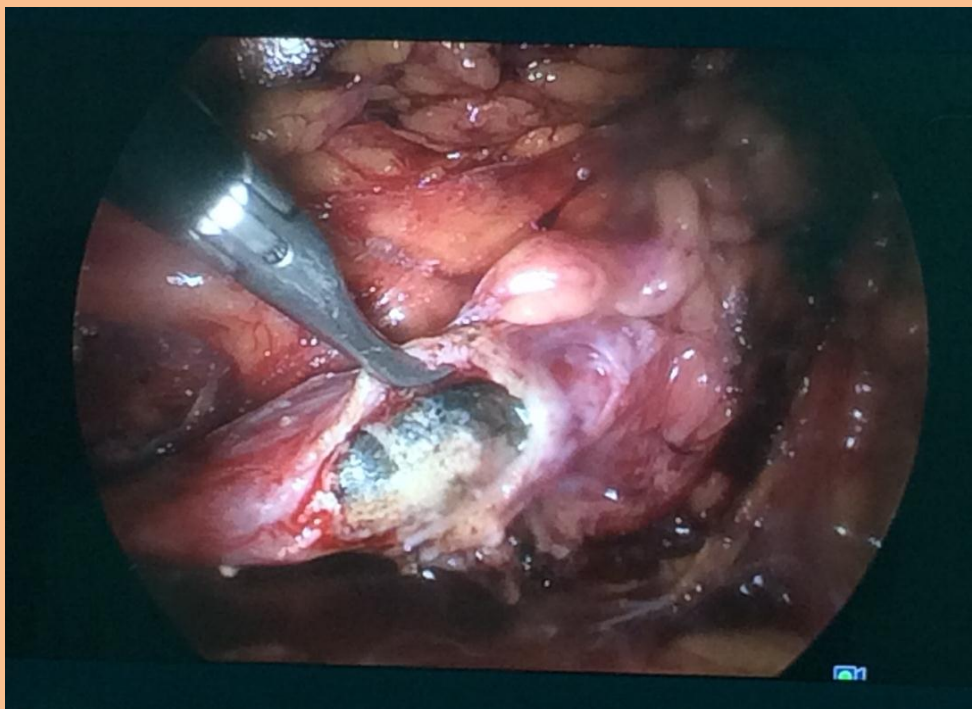
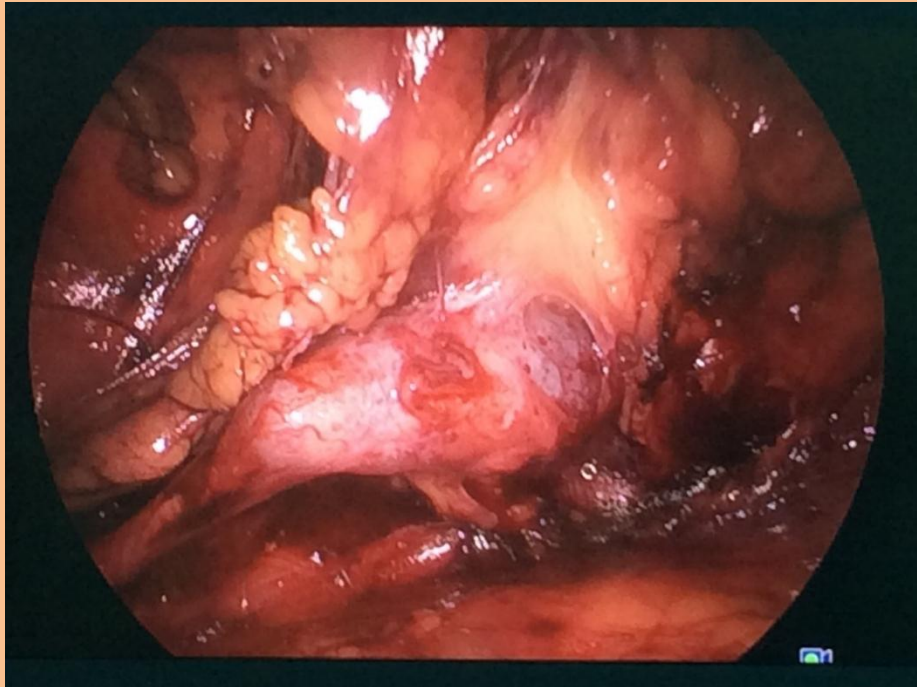
- Large and impacted ureteric stone
- Upper third stone
 - Transperitoneal or retroperitoneal
- Middle and lower third stone
 - Transperitoneal

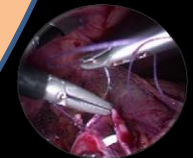
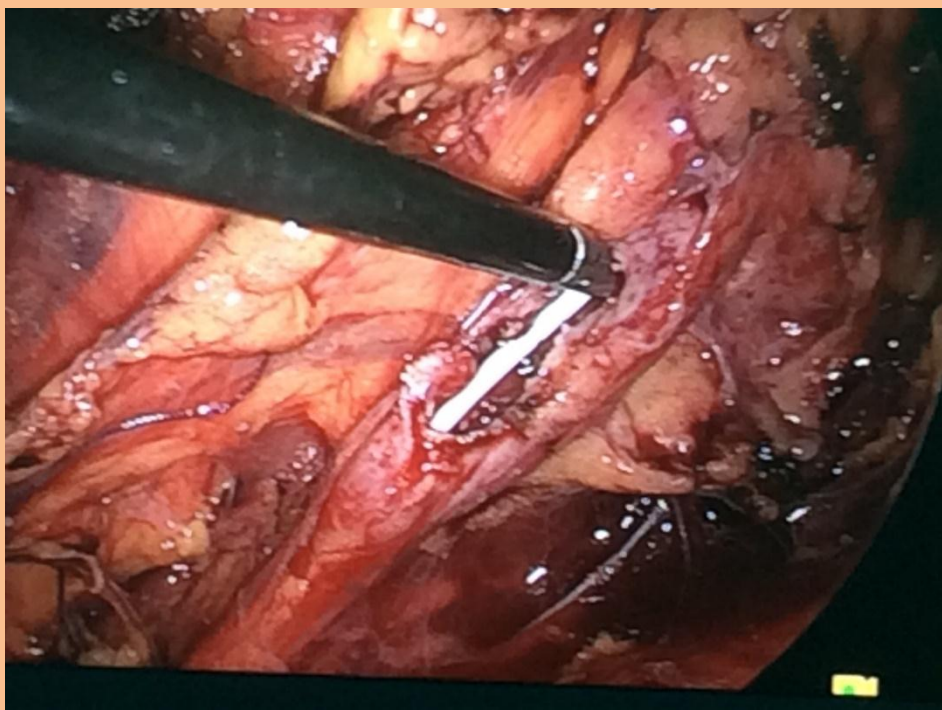
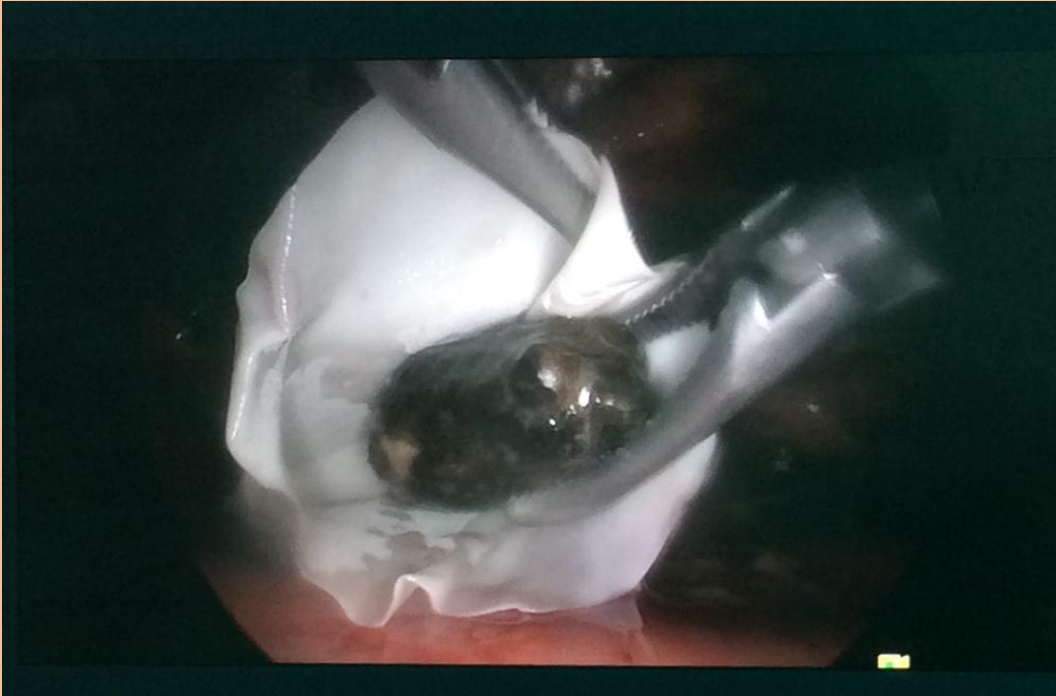


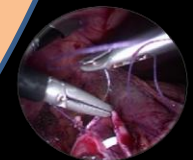
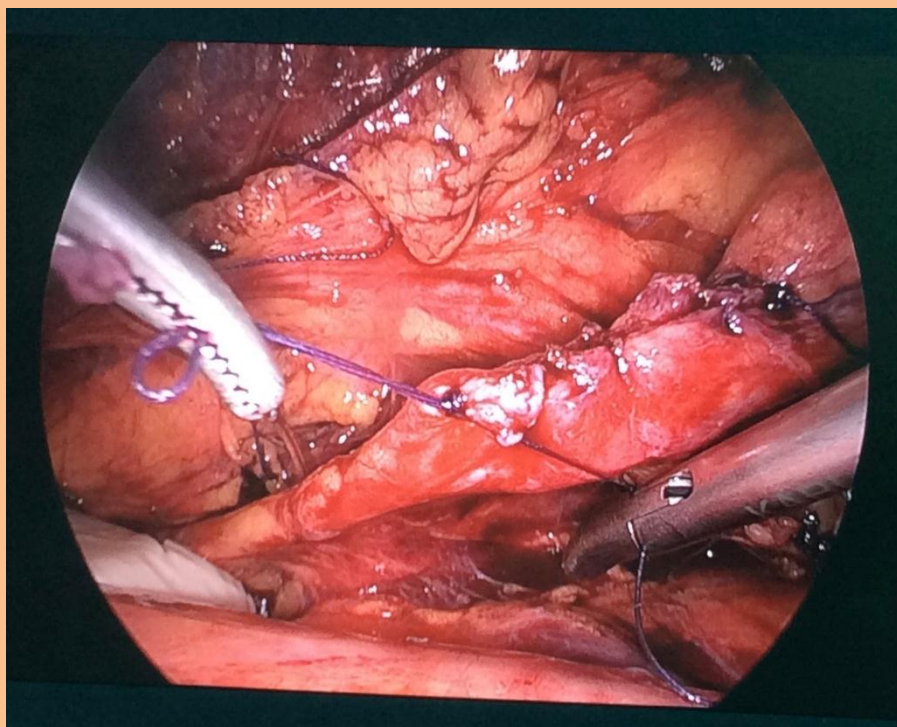
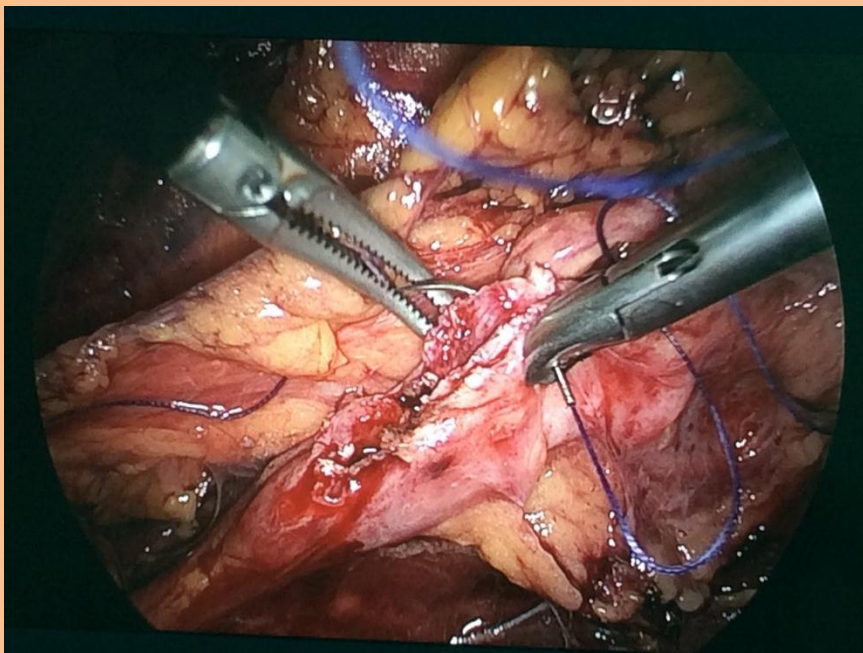
Ureterolithotomy

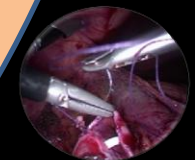
Year	Cases
2015	2
2016	5
2017	8











Procedures performed in Mandalay

Reconstructive procedures

- Pyeloplasty
- Ureteric reimplantation
- VVF repair
- Radical prostatectomy

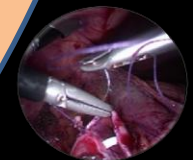
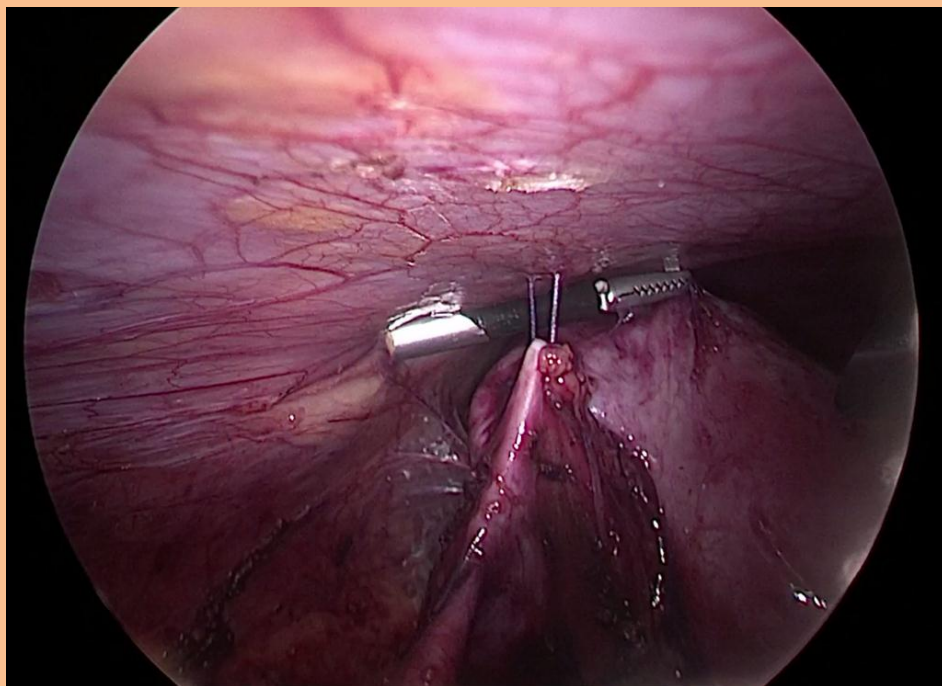
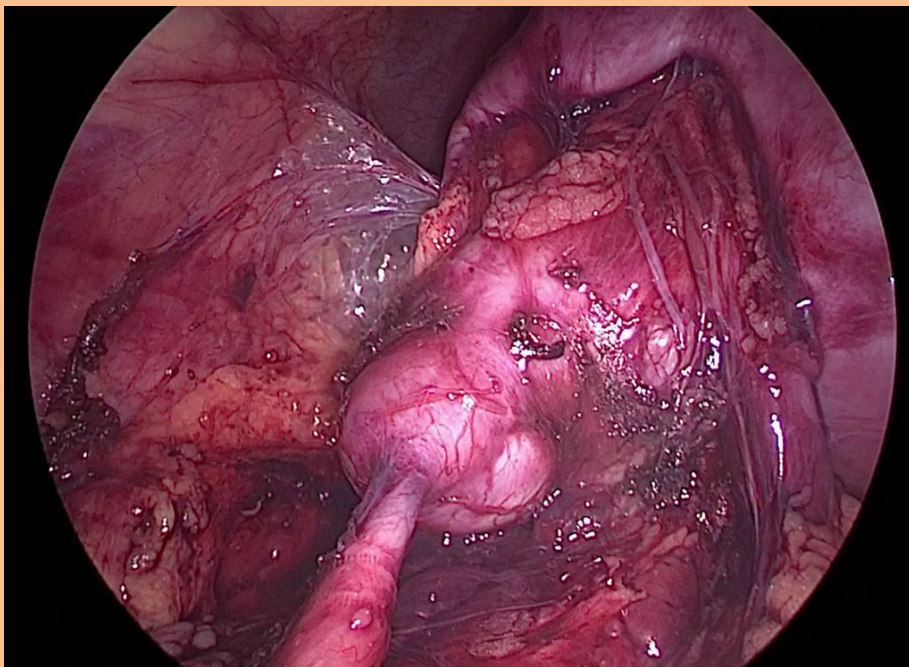
Pyeloplasty

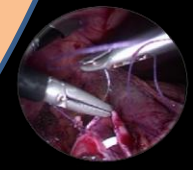
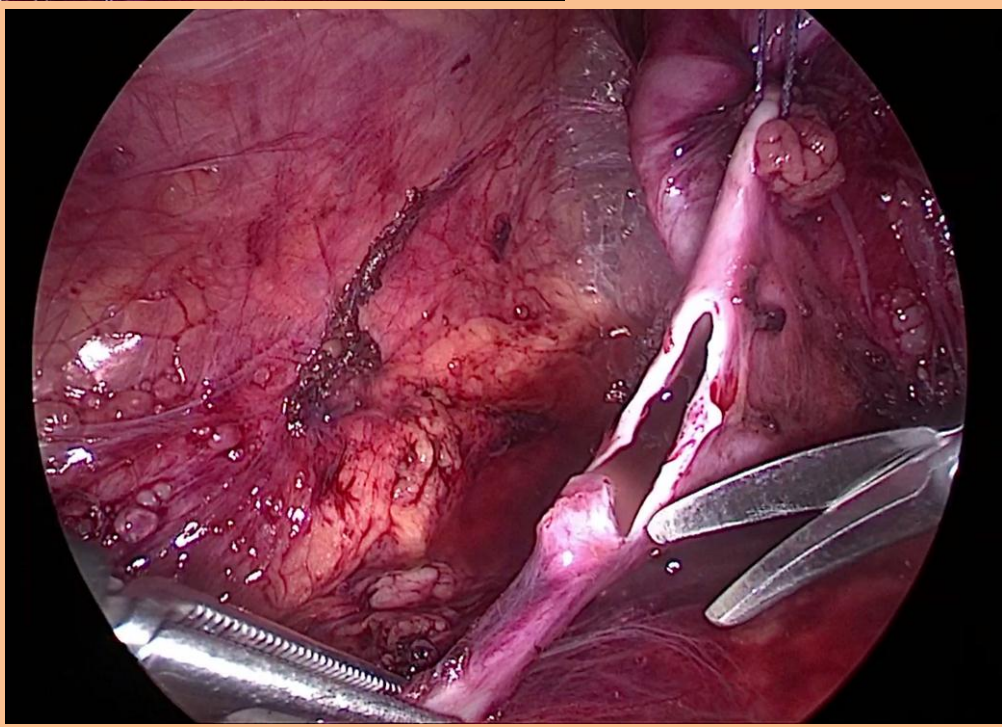
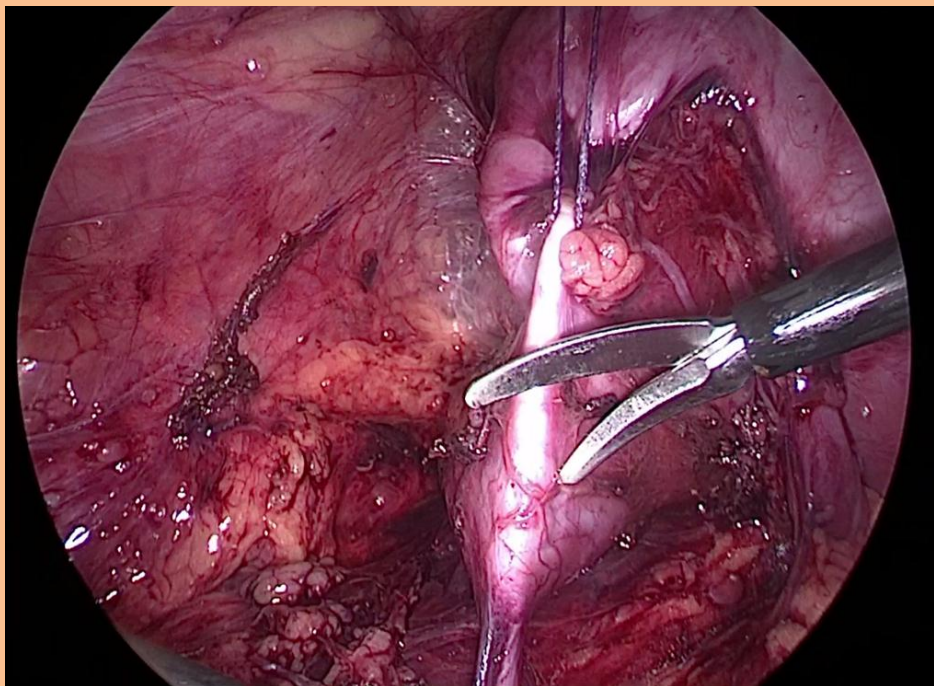
- For PUJ obstruction
 - Dismembered pyeloplasty
 - V Y plasty

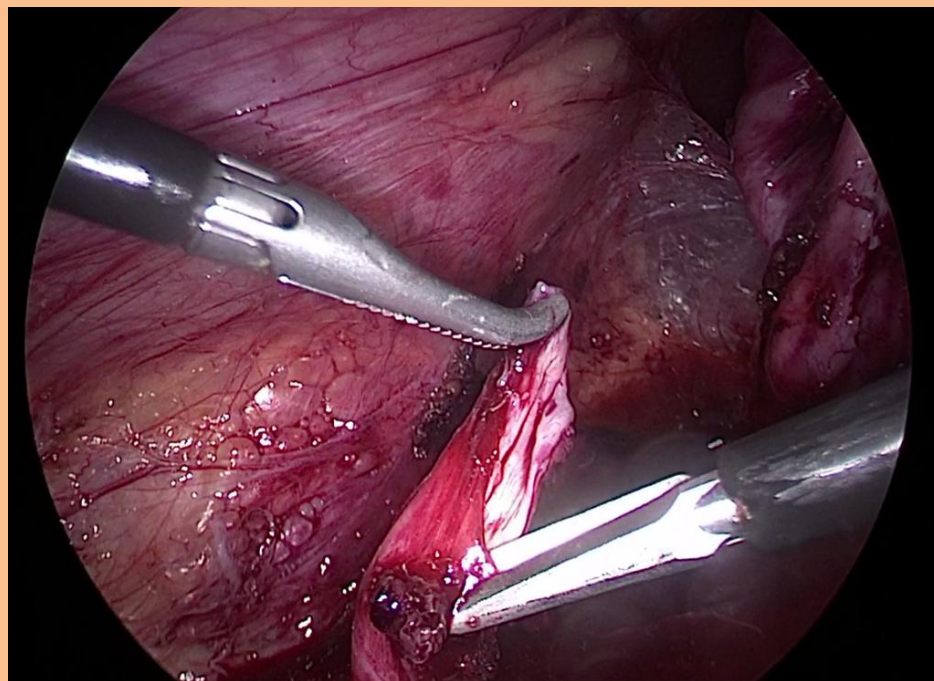
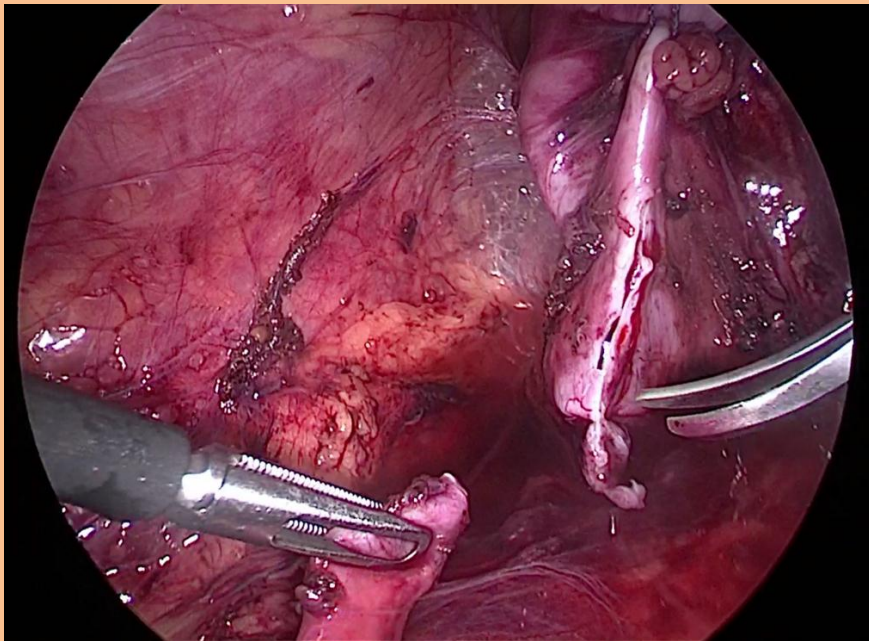


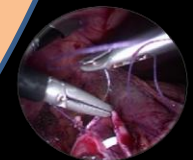
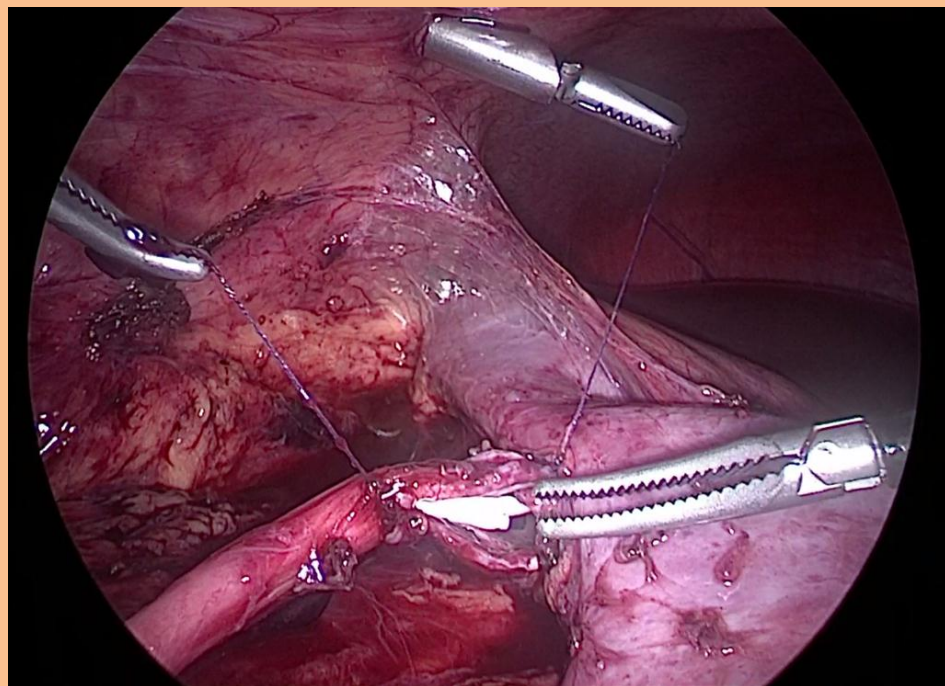
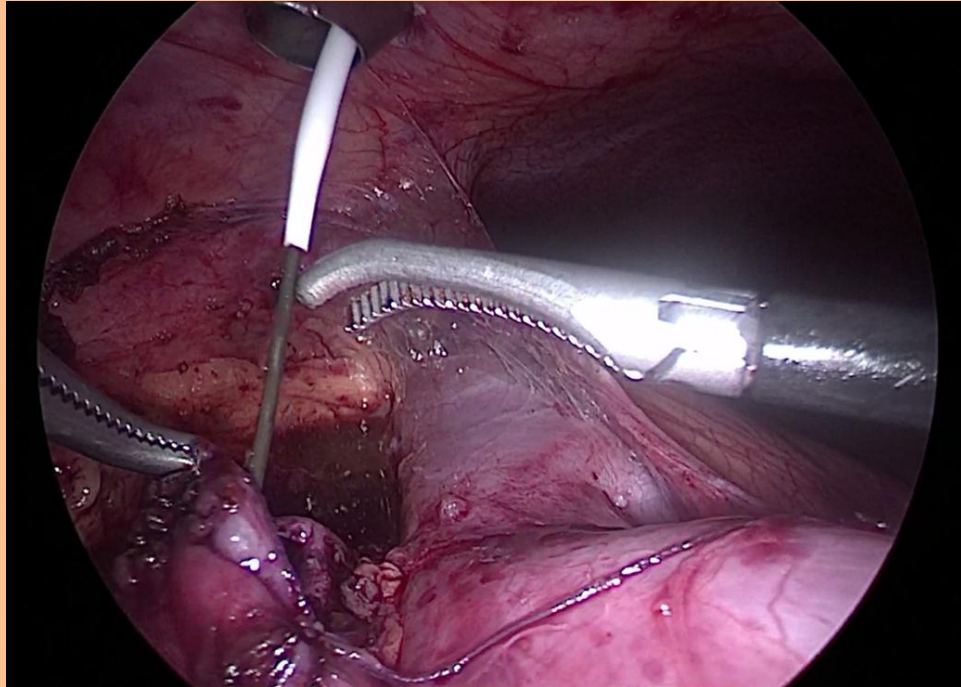
Pyeloplasty

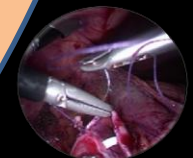
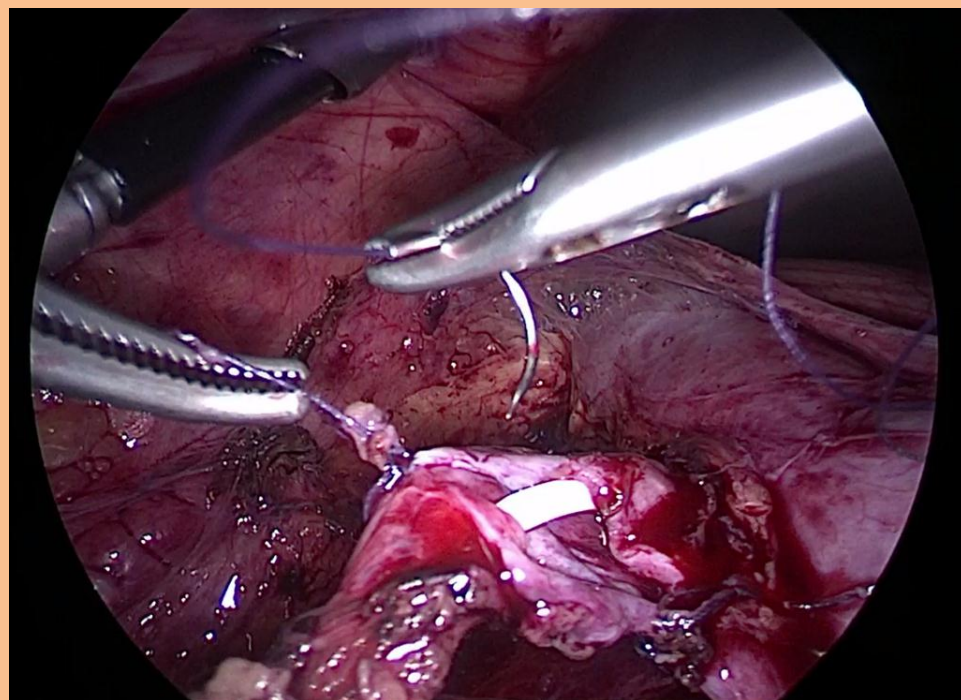
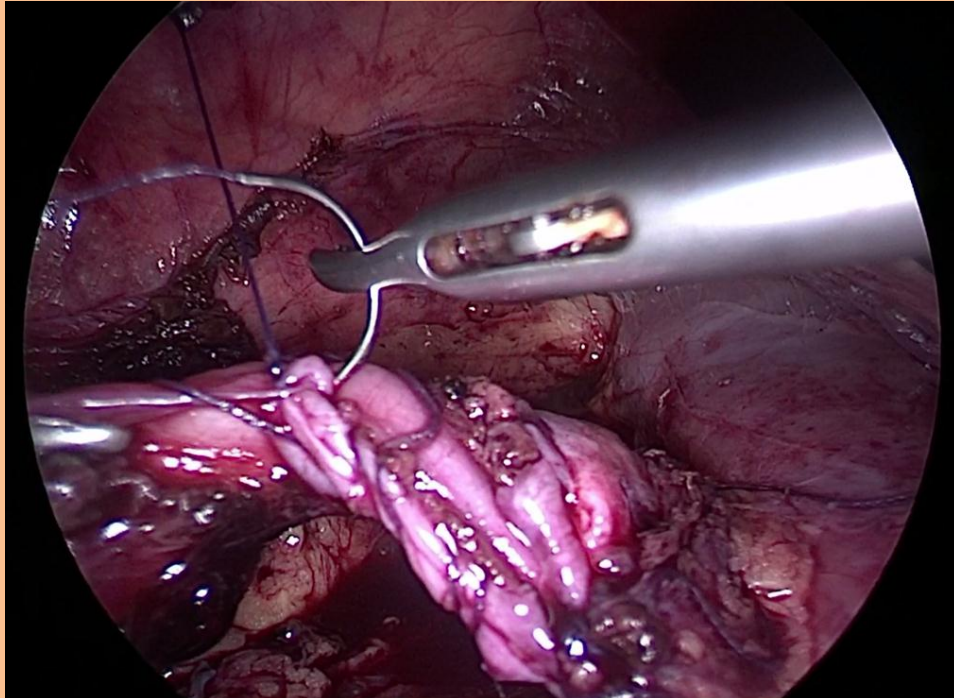
Year	Cases
2015	5
2016	11
2017	6



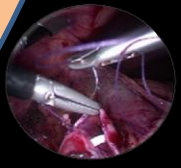
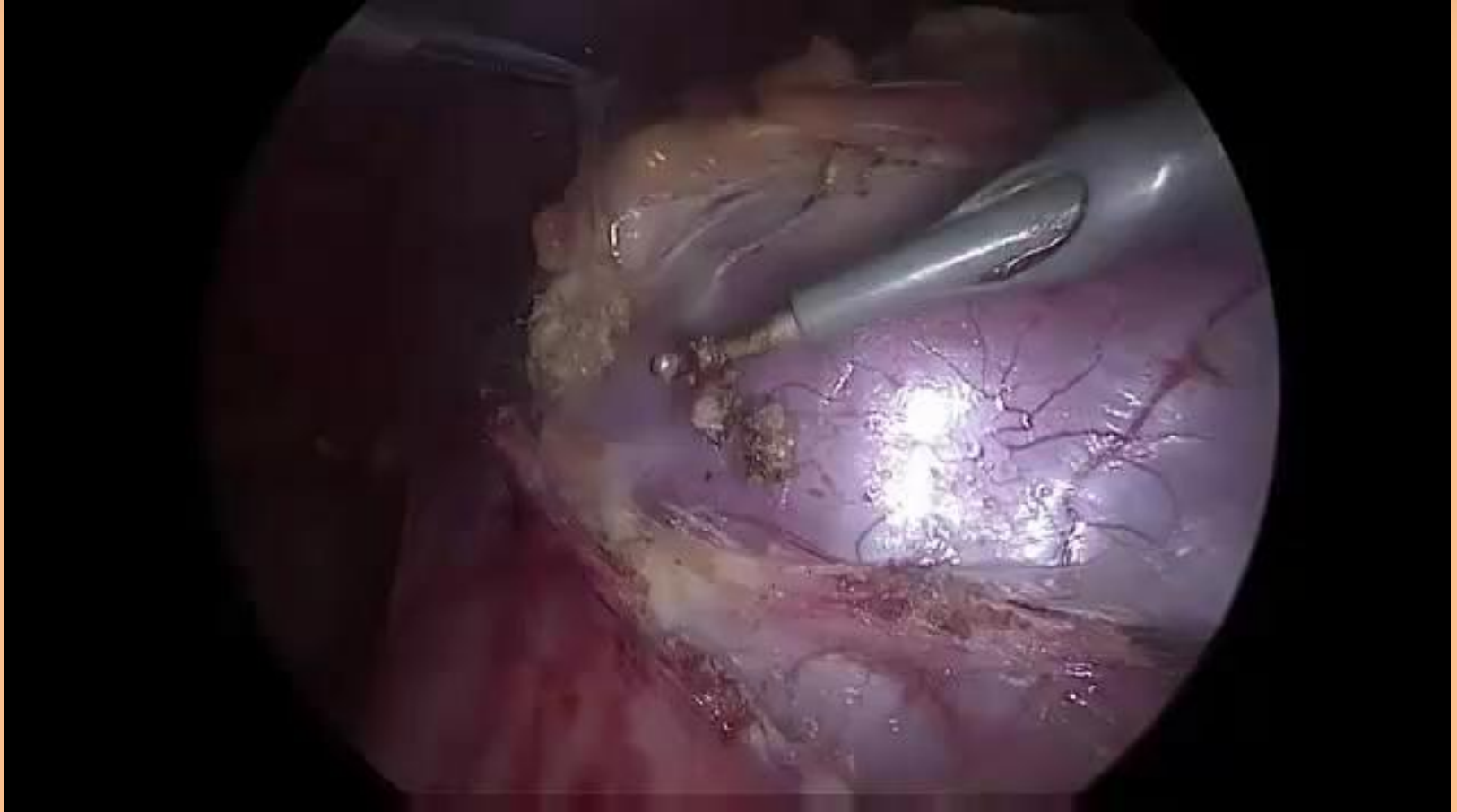








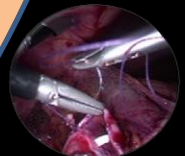
Pyeloplasty

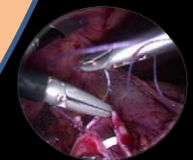
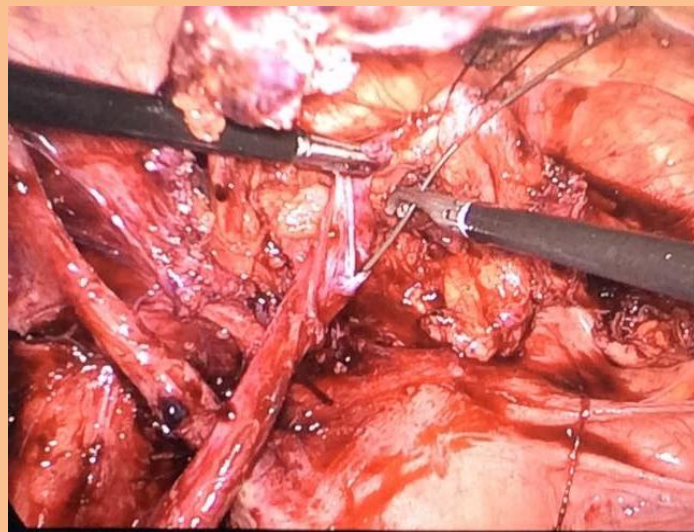
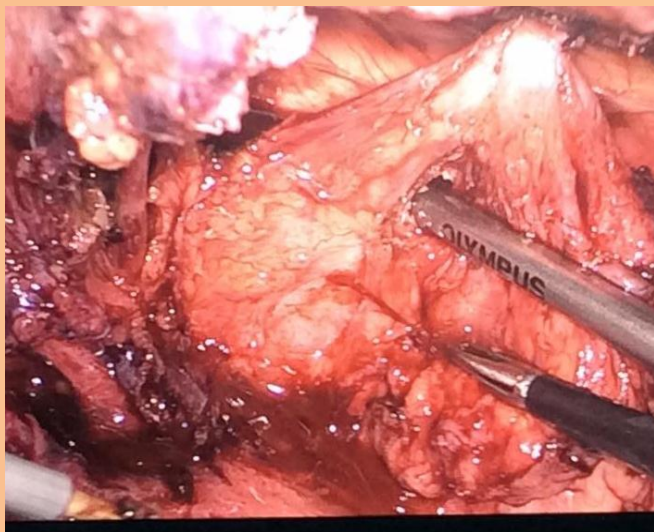
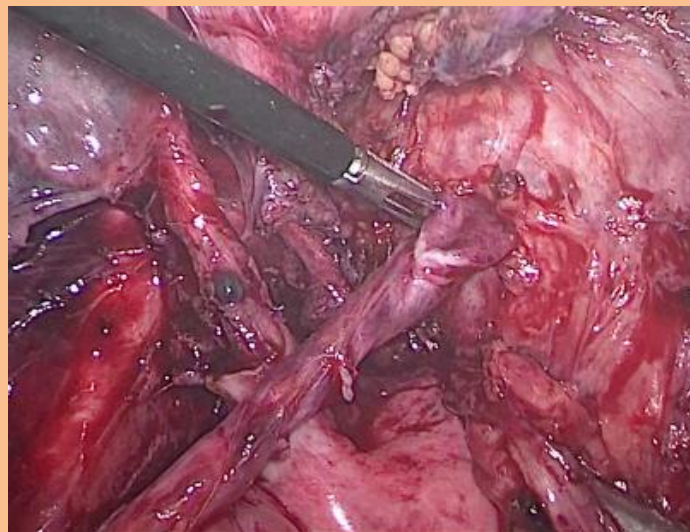
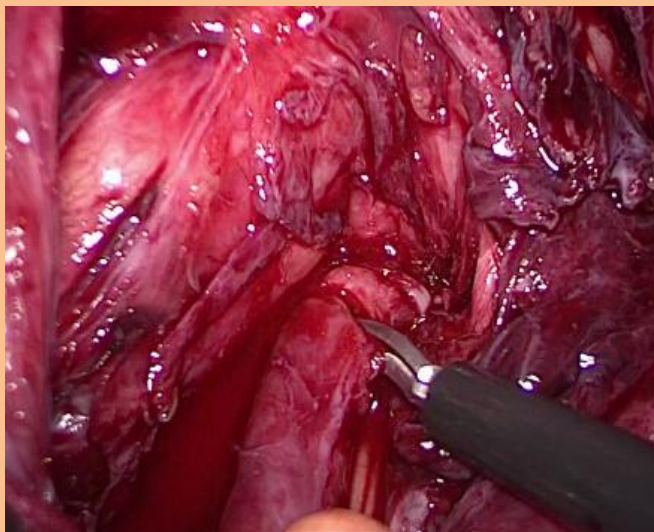


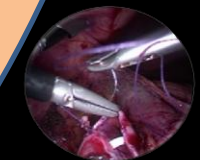
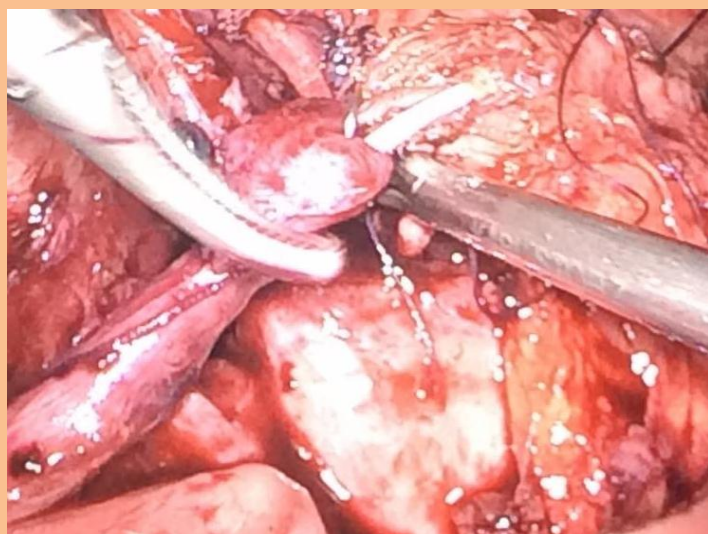
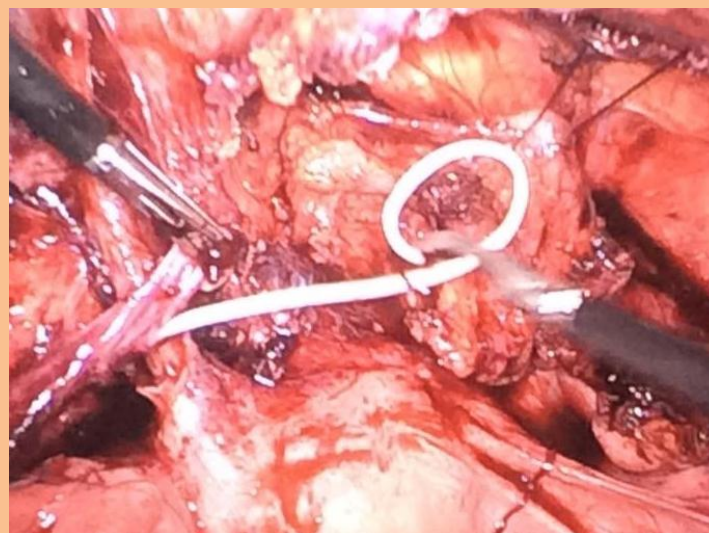
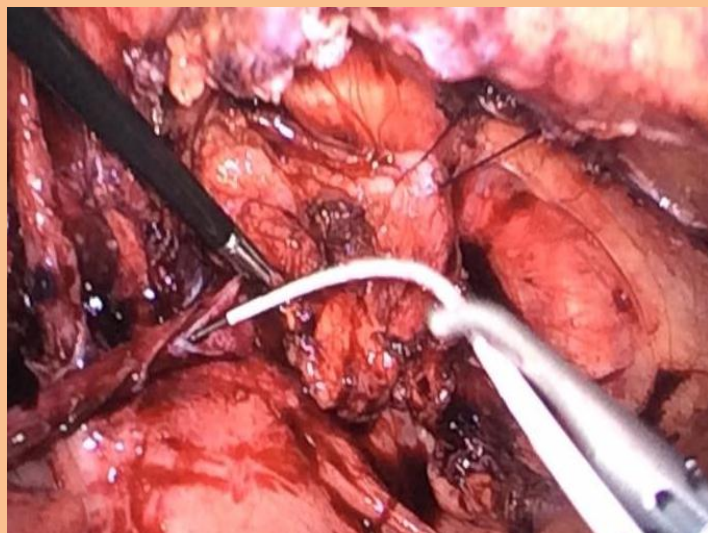


UVF and VVF repair

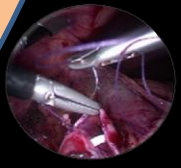
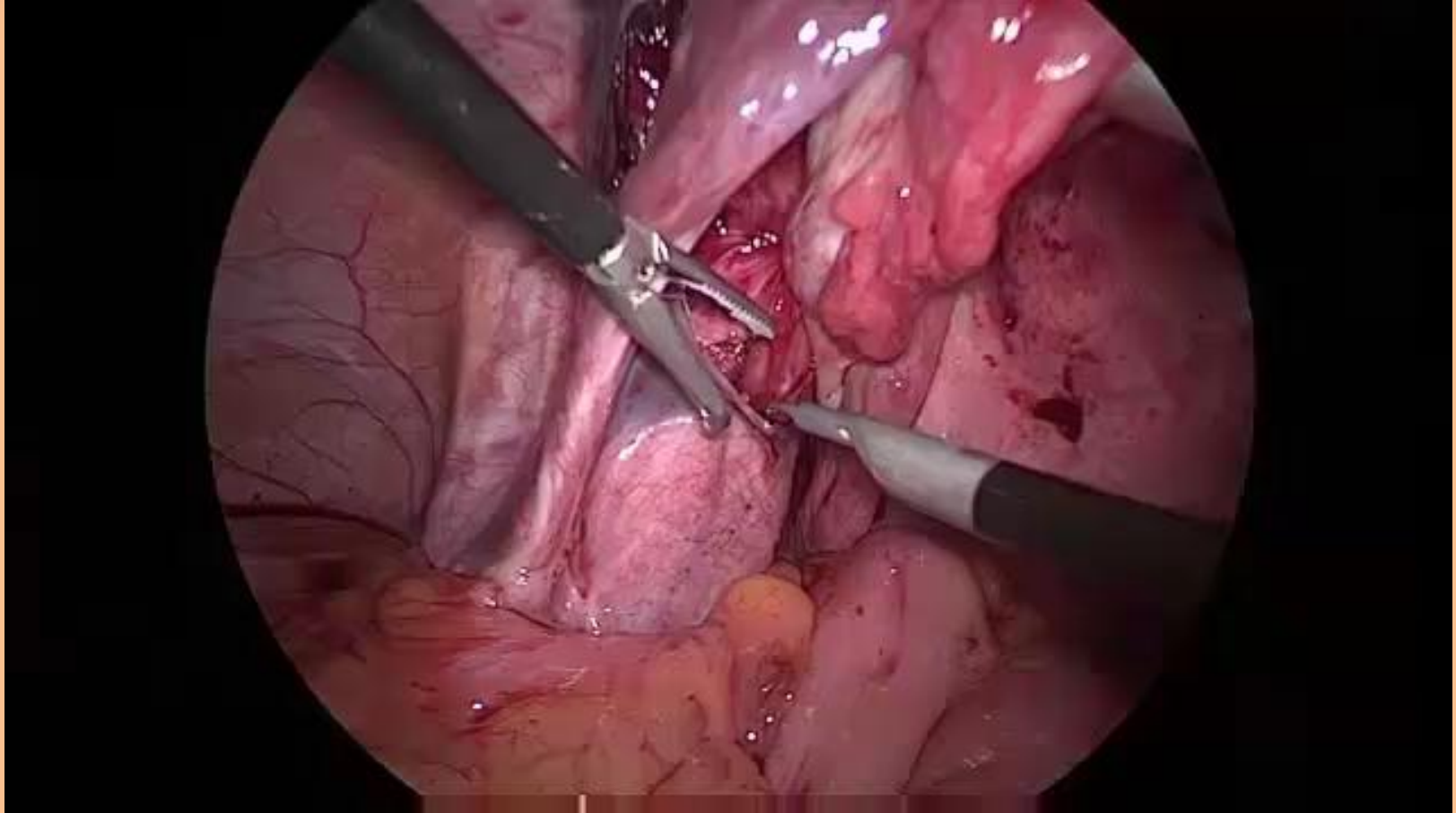
Year	UVF	VVF
2015	-	2
2016	2	3
2017	3	4







UVF repair

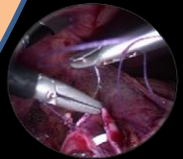


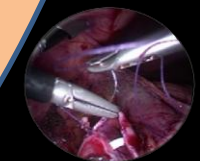
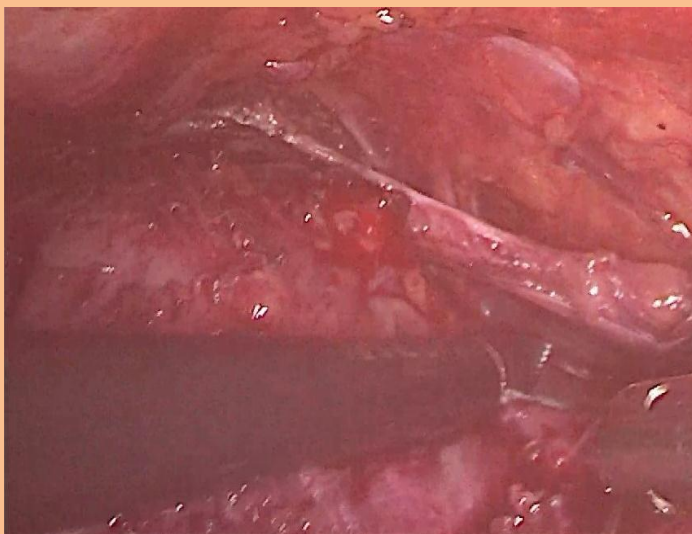
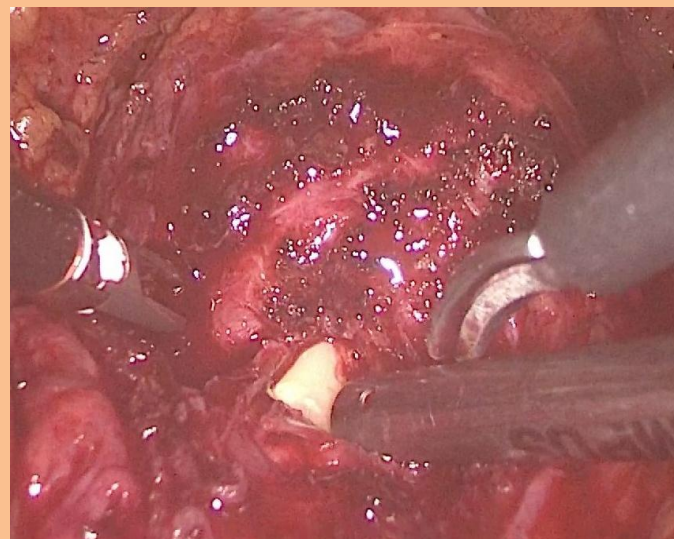
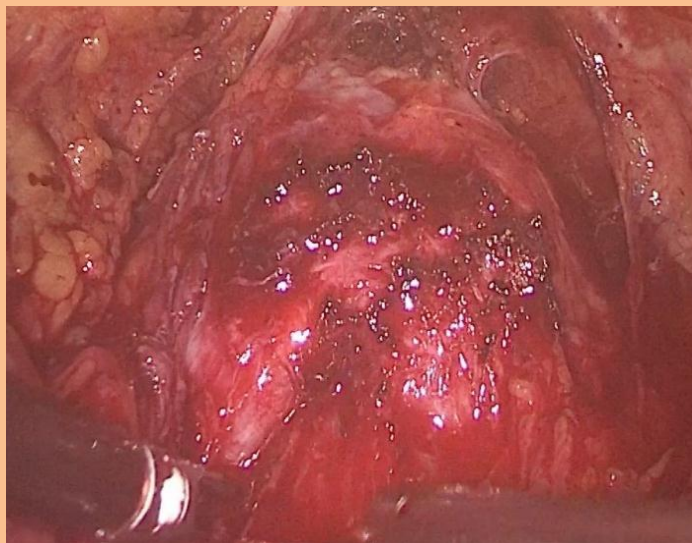


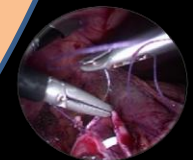
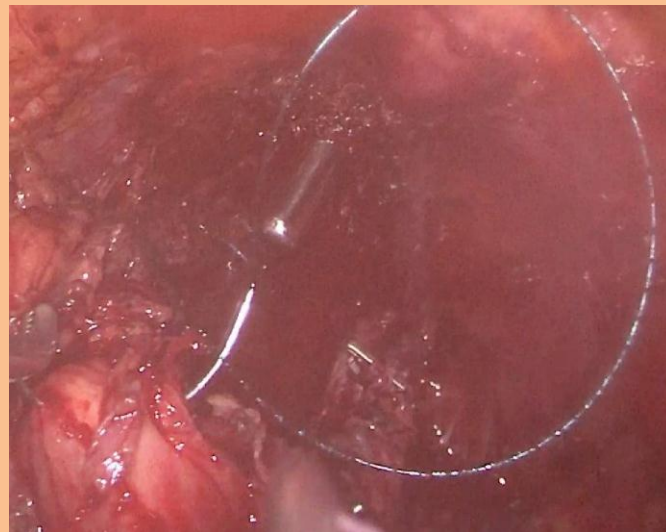
Radical prostatectomy



- Localized carcinoma prostate
- First case was tried on 23.8.2017
- Open procedure decided in the very last step of the procedure
- Second case on 30.10.2017
- The first successful laparoscopic radical prostatectomy
- Very minor urge incontinence on follow-up visits







Radical prostatectomy



Procedures performed in Mandalay

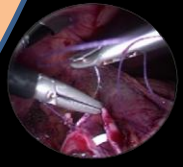
Transplant procedure

- Hand assisted laparoscopic living donor nephrectomy



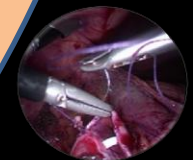
Laparoscopic living donor nephrectomy

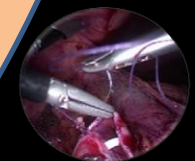
- Pure laparoscopic donor nephrectomy
- Hand-assisted laparoscopic donor nephrectomy
- Robot-assisted laparoscopic donor nephrectomy

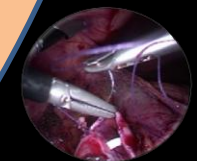
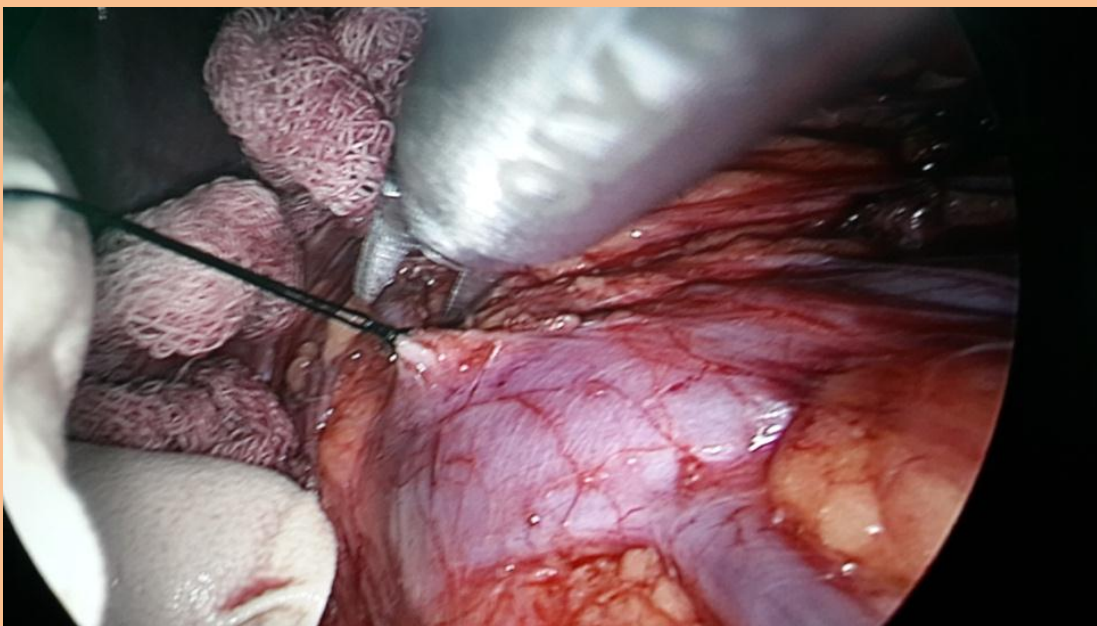


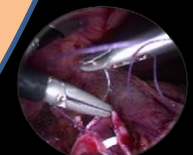
Hand-assisted donor nephrectomy (Contd.)

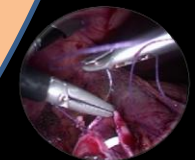
- The first successful case in Myanmar on 14 Feb 2017
- 16 cases in 2017



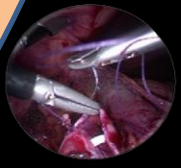






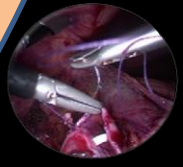


HALDN

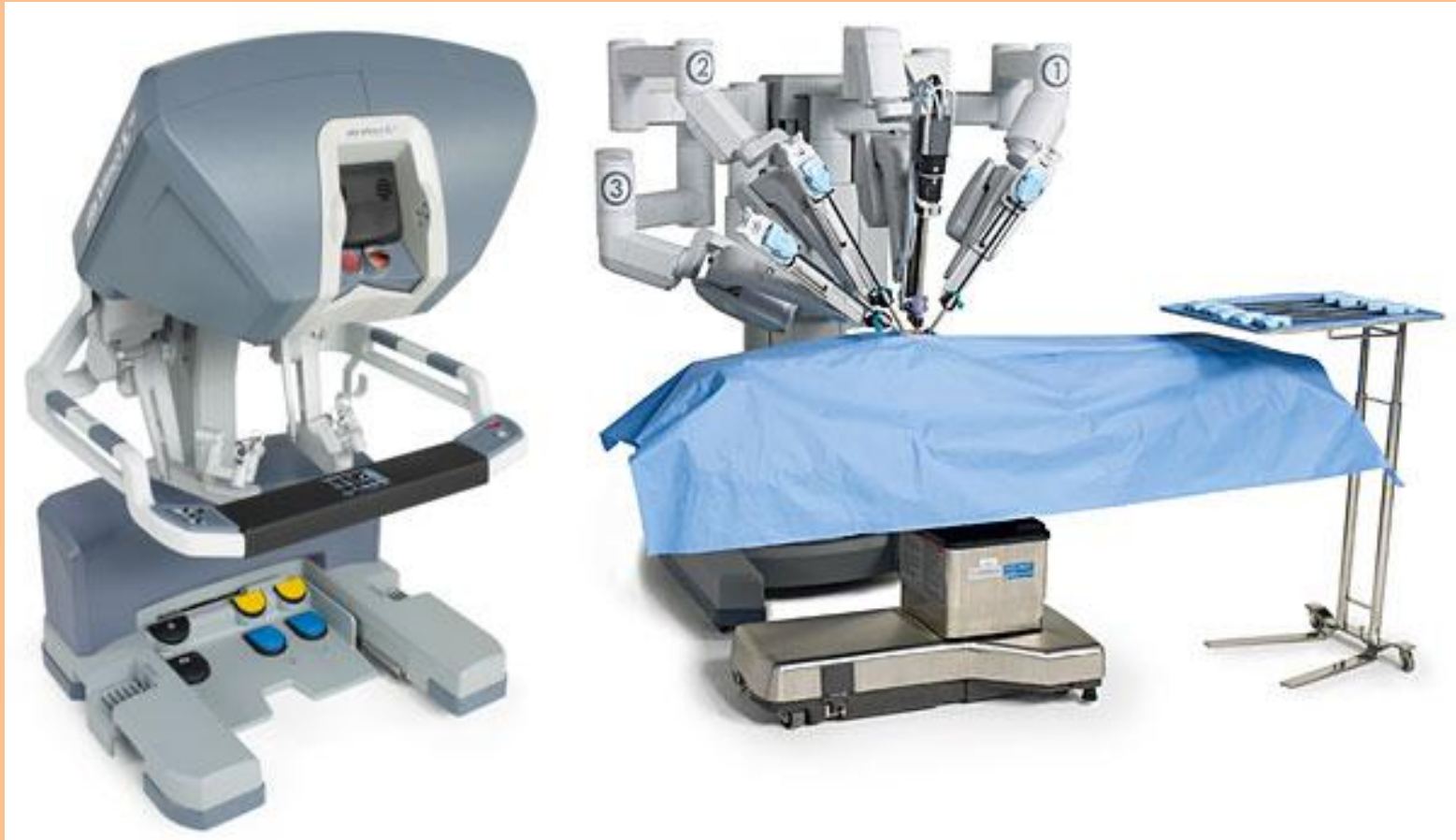


Procedure for near-future

- Laparoscopic cystectomy and extracorporeal urinary diversion



Dream



Why laparoscopic procedures??



Pride?



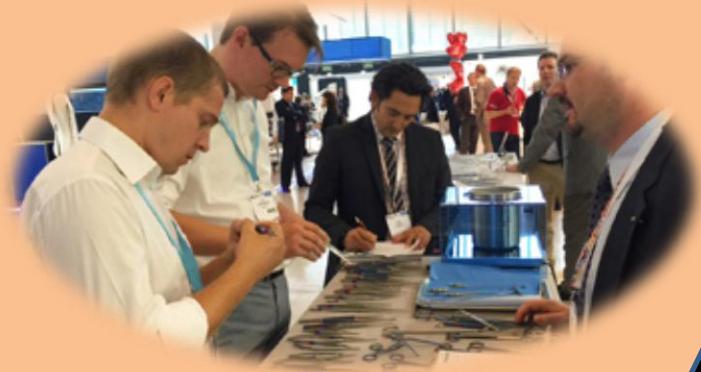
Satisfaction?



To impress?



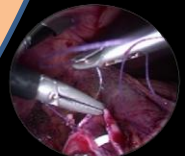
To be sexy?



New markets?

‘The patient is the centre of the medical universe around which all our work revolves, and toward which all our efforts trend.’

J. B. Murphy (American physician)
1857-1916





Patients, as end-users, benefits most
from laparoscopic procedures





Thank You

