

# Laparoscopic management of ESHRE/ ESGE Class U4a congenital malformations (six cases)



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## Objective

To describe our experience in laparoscopic management of cavitated uterine rudimentary horns (ESHRE/ ESGE Class U4a congenital malformations) and their complications

## Methods

Six patients between 22 and 32 years old were diagnosed to have uterine rudimentary horns (ESHRE/ ESGE Class U4a congenital malformations).

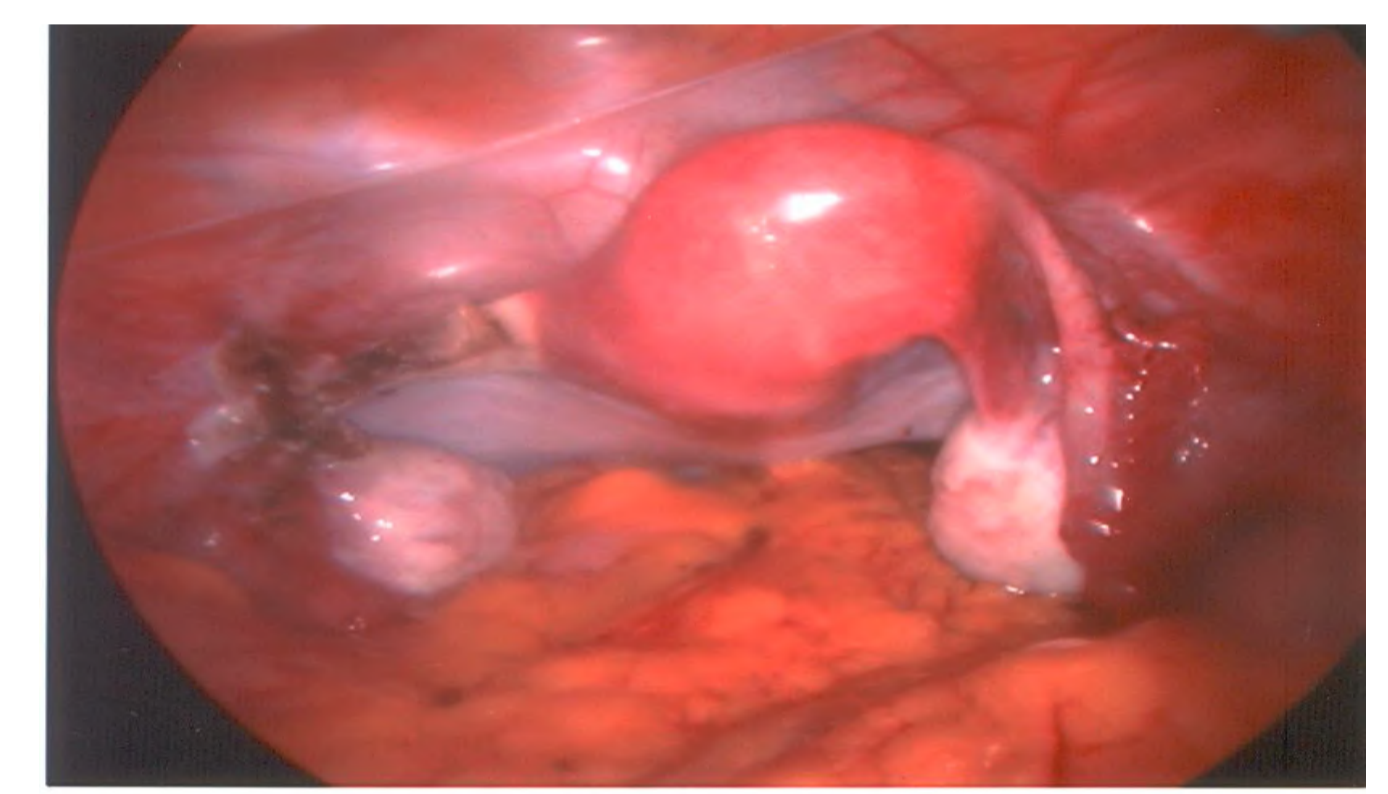
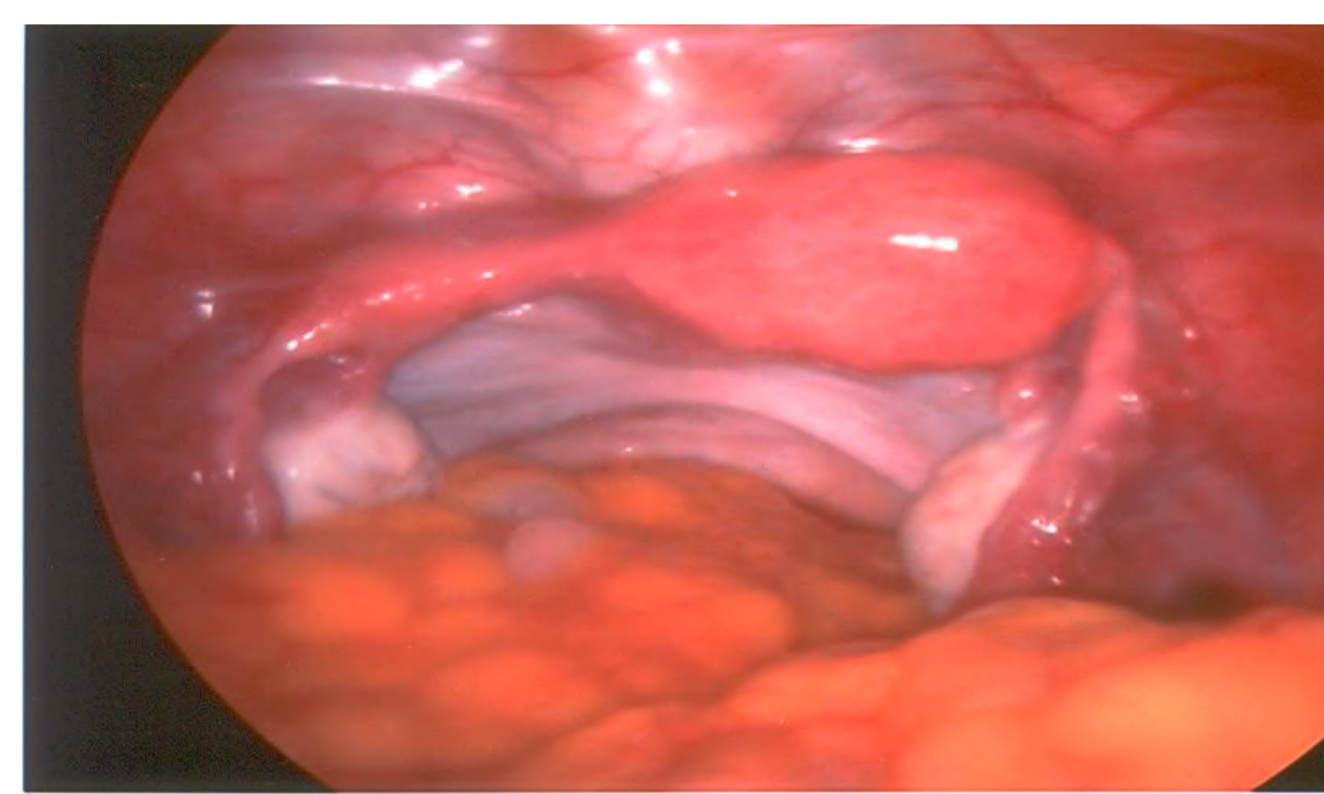
As diagnostic imaging tool transvaginal ultrasound (TVS) and/or magnetic Resonance Imaging (MRI) were used. In two cases hysterosalpingography (HSG) was also performed. In all cases the rudimentary horn was in the left side with a right unicornuate uterus. The main symptom was severe dysmenorrhea (5/6 patients) and infertility (2/6 patients). One patient was diagnosed to have ectopic pregnancy in the left uterine horn.

## Results

All patients were successfully managed laparoscopically. In one case the rudimentary horn was firmly attached to the unicornuate uterus while in 5 cases the rudimentary horn was attached to the hemi-uterus by a band of tissue. Bipolar energy and scissors were used in all cases and ultrasonic assisted in two cases. The excised rudimentary horn, including the one with the ectopic pregnancy, were removed from the peritoneal cavity intact, through an enlargement of the suprapubic trocar incision. There were no intraoperative or postoperative complications.

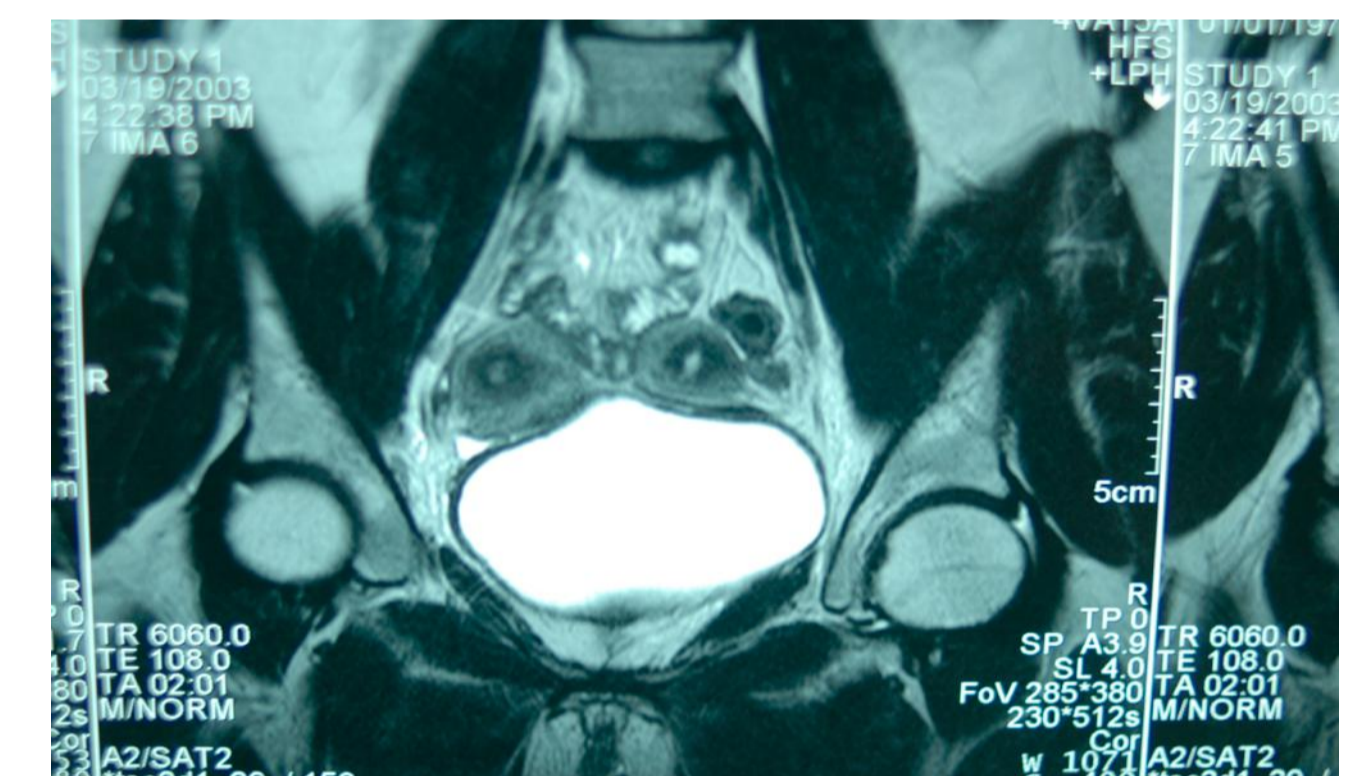
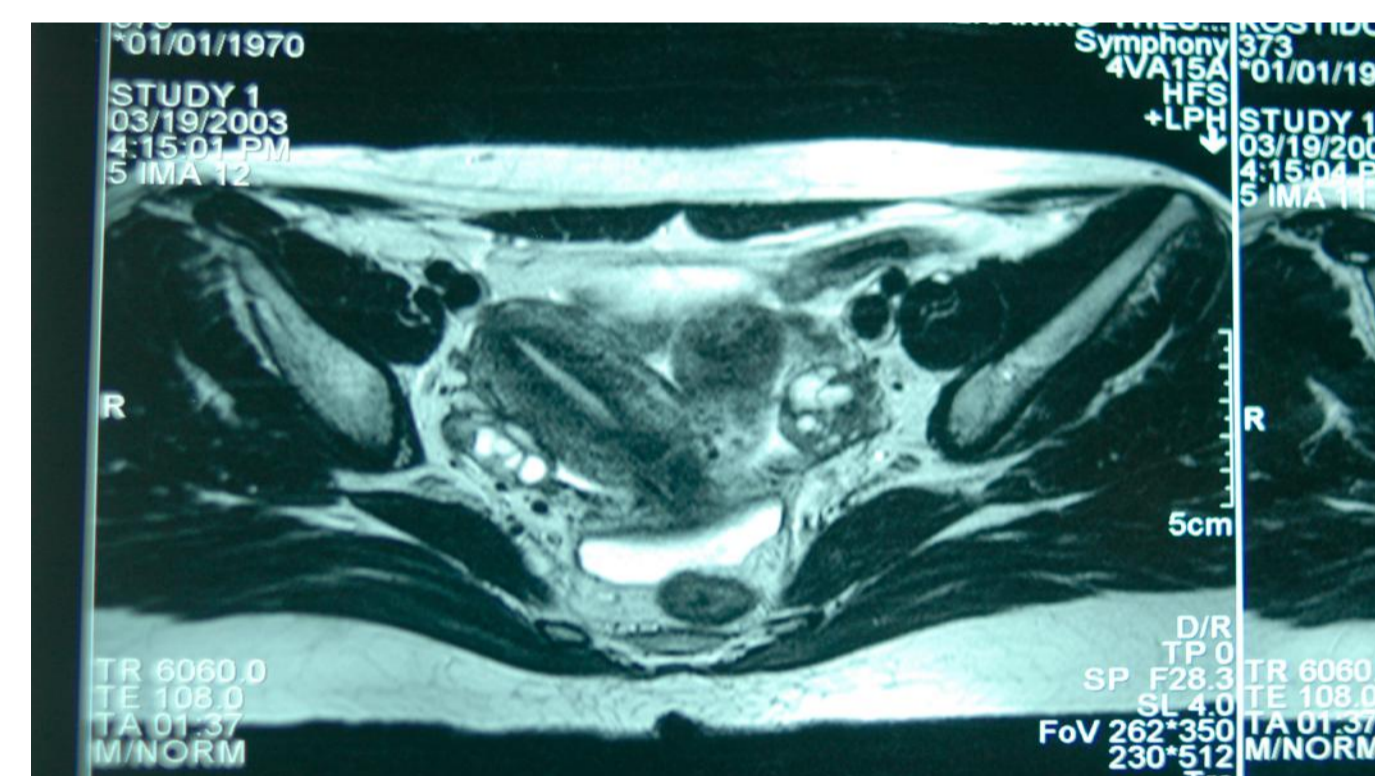
## Conclusions

Congenital anomalies can be managed endoscopically. After careful preoperative evaluation the laparoscopic removal of the cavitated rudimentary horn (Class U4a ESHRE/ ESGE classification) congenital malformations is safe and should be the treatment of choice.

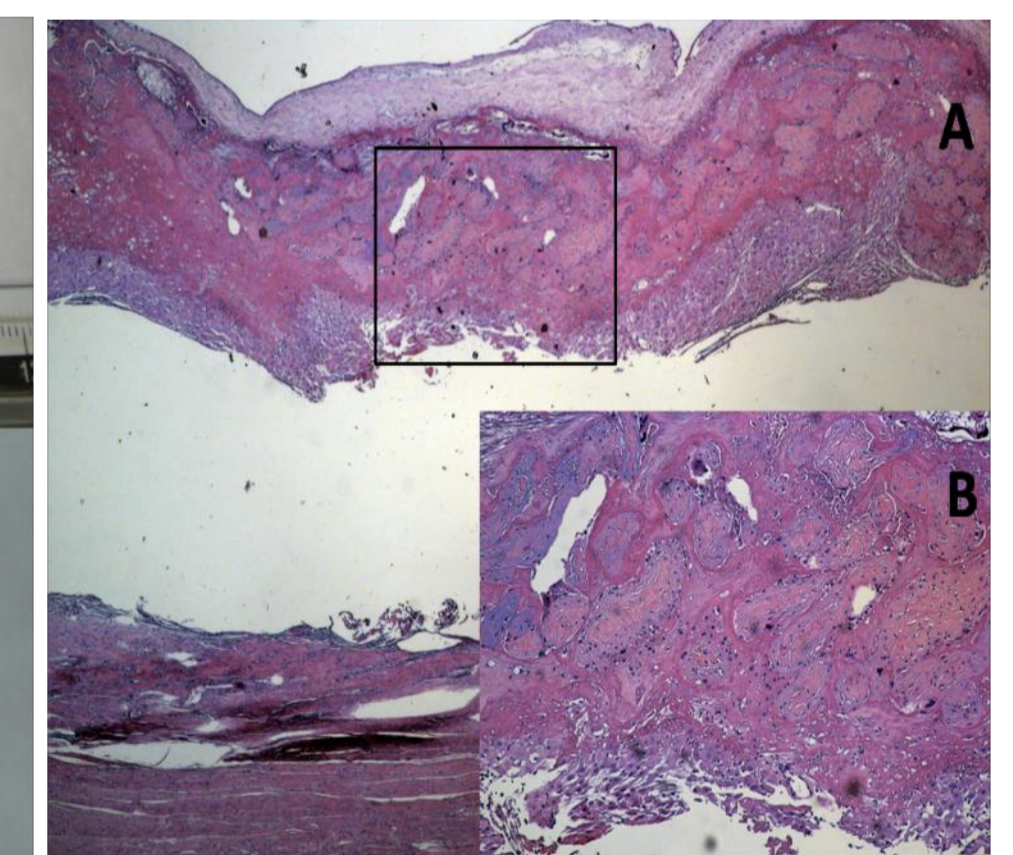
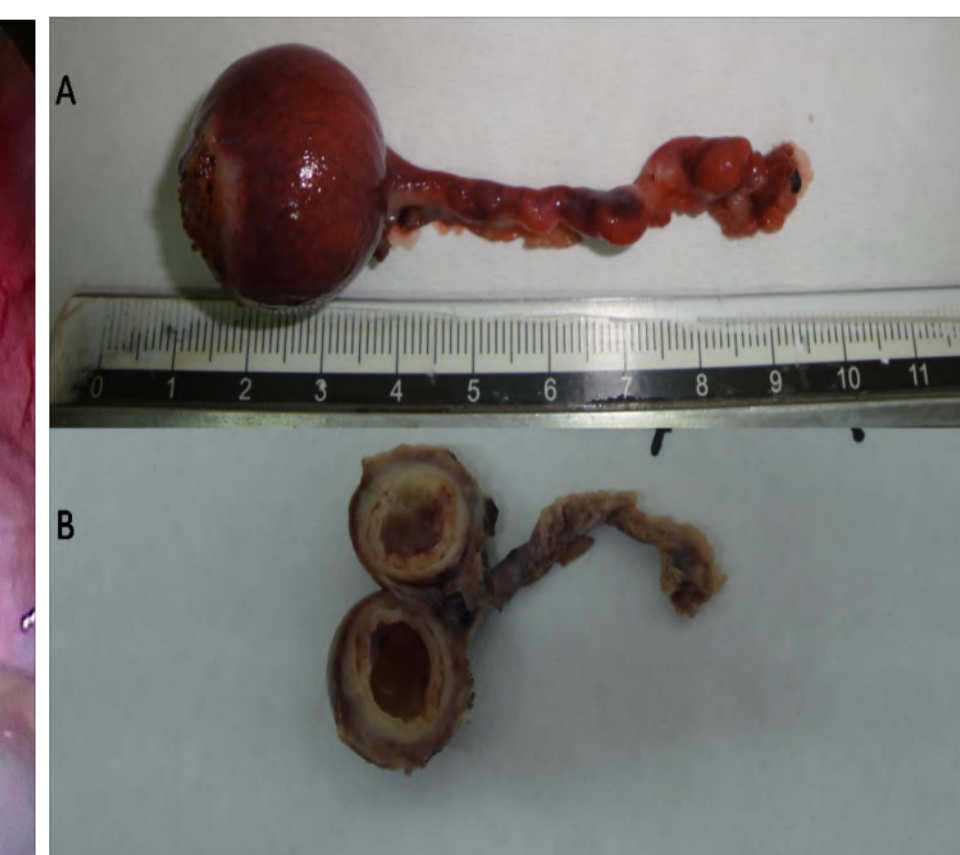
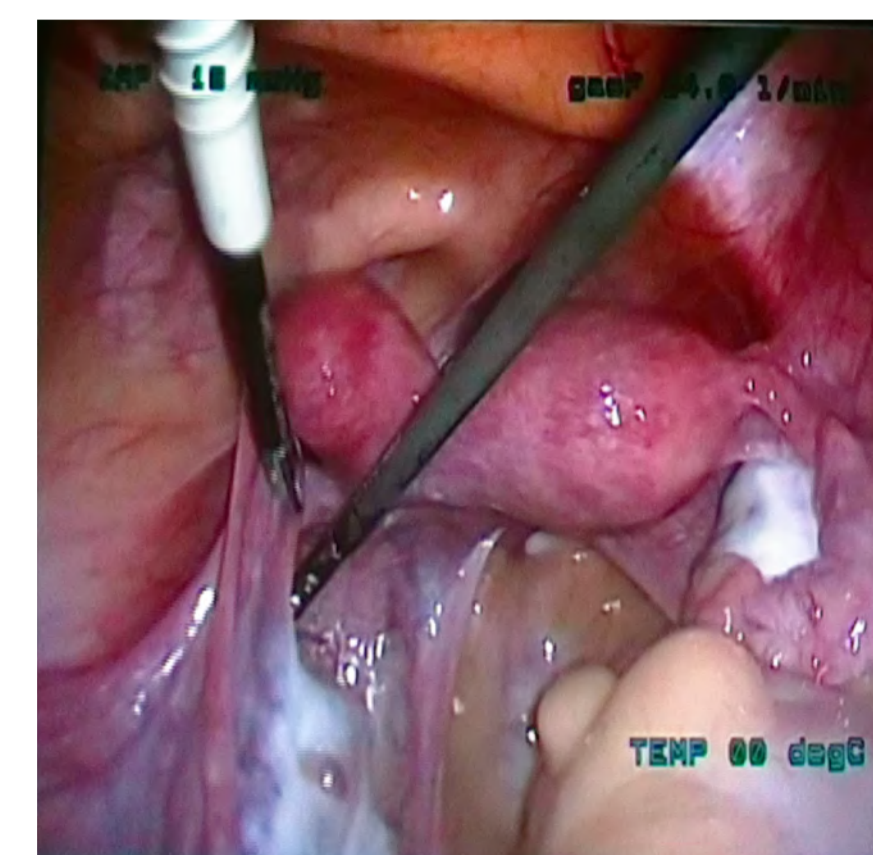


Case 2: Endoscopic view of a right unicornuate uterus with a non-communicating left rudimentary horn before and after laparoscopic management (excision of the rudimentary horn and the ipsilateral salpinx)

Characteristics Cases	Age	Symptoms	Side	Coexisting renal problems	Imaging diagnosis	Laparoscopic Treatment
Case 1	28	Dysmenorrhea Infertility	Left	No	TVS, HSG	Left Rudimentary Horn Removal
Case 2	24	Dyspareunia	Left	No	TVS, MRI	Left Rudimentary Horn Removal
Case 3	32	Dysmenorrhea	Left	No	TVS, HSG	Left Rudimentary Horn Removal
Case 4	29	Ectopic pregnancy	Left	No	TVS	Left Rudimentary Horn Removal
Case 5	27	Dysmenorrhea Infertility	Left	No	TVS, MRI	Left Rudimentary Horn Removal
Case 6	22	Dysmenorrhea	Left	No	TVS, MRI	Left Rudimentary Horn Removal



Case 3: Magnetic Resonance Imaging (M.R.I.) of a right unicornuate uterus with left rudimentary horn



Case 4: Left rudimentary horn ectopic

## Keywords

müllerian anomalies, congenital malformations, rudimentary horn, ESHRE/ ESGE classification, laparoscopy

## Conflict of interest

The authors declare no conflicts of interest.



Case 6: Laparoscopic view of a large left rudimentary horn before removal

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Primum non nocere: Maintain safety while pushing the boundaries  
Ωφέλειον ἢ μὴ βλάπτειν Hippocrates, 4<sup>th</sup> century B.C.

