

Hysteroscopic resection of a uterine tumour resembling ovarian sex-cord tumour (UTROSCT) with Myosure for fertility preservation: a case report and literature review

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Uterine tumours resembling ovarian sex-cord tumours (UTROSCT) are extremely rare uterine mesenchymal tumours. They have uncertain malignant potential ranging from a benign course to metastatic disease, recurrences and deaths. 27% of cases are diagnosed in women under 40 years of age and therefore fertility preservation is an important consideration.

Case Presentation

A 24 year nulligravida female presented with heavy menstrual bleeding causing anaemia. A pelvic US suspected a submucosal fibroid and she underwent a Myosure resection. Histology showed small epithelioid cells arranged in a variety of architectural patterns including nests, tubules, trabeculae, cords, focal rosettes, retiform and insular arrangements. There was positive IHC staining for WT-1, ER, PR, CD99, inhibin, calretinin and desmin, and weakly positive for melan-A. Prominent sex cord differentiation within a uterine mesenchymal neoplasm was in keeping with an UTROSCT.

A post-resection pelvic MRI showed a persistent 22x 23 mm mass within the endometrial cavity with myometrial invasion.

After extensive counselling the patient elected for fertility sparing treatment with a further hysteroscopic resection. A second Myosure procedure was performed and her first pelvic US after 3 months shows no residual disease. A repeat hysteroscopy has been booked for 6 months.

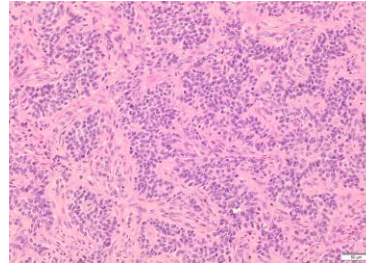


Figure 1: Histology showing UTROSCT

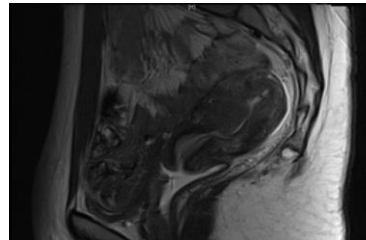


Figure 2: T2 MRI image of persistent mass within the endometrial cavity

Discussion

UTROSCT are traditionally treated with hysterectomy with or without bilateral salpingo-oophorectomy. Given their low malignant potential the option of organ sparing surgery with a myomectomy or hysteroscopic resection has been proposed for fertility preservation.

There are 12 published cases where organ sparing surgery has been performed of which seven had hysteroscopic resections (Table 1). This is the first reported case of a Myosure resection.

The disease free survival at 5 years for women who had organ sparing surgery is 89% and four women have had successful pregnancies following their surgeries.

UTROSCT generally follow a benign course and fertility sparing surgery should be considered in women of reproductive age with this disease.

References can be requested

Table 1: Published cases of UTROSCT treated with organ sparing surgery

Author	Age	Surgery	Follow up	Recurrence	Pregnancy
Hillard et al. (2004)	32	Laparoscopic myomectomy	18 months	No	Yes
Moore and McCluggage (2017)	12	Myomectomy	27 months	No	NA
	36	Myomectomy	63 months	No	NA
Liu et al. (2015)	40	Myomectomy, recurrence treated with TAH	3 months	Yes	NA
Schraag et al. (2017)	28	2x abdominal resections, recurrence treated with abdominal hysterectomy	56 months	Yes	Yes
Anastasakis et al. (2008)	28	Hysteroscopic resection	18 months	No	Yes
Garuti et al. (2009)	29	Hysteroscopic resection	13 months	No	NA
Berretta et al. (2009)	26	Hysteroscopic resection	NA	NA	NA
Watrowski et al (2015)	22	Hysteroscopic resection	28 months	No	NA
Jeong et al (2015)	32	Hysteroscopic resection, TLHBS once family complete	47 months	No	Yes with IVF
Schraag et al. (2017)	24	Hysteroscopic resection, recurrence treated with abdominal resection	65 months	Yes	NA
Giordano et al. (2010)	26	Hysteroscopic resection	15 months	No	NA
Present case (2021)	24	Hysteroscopic Myosure resection	3 months	No	NA

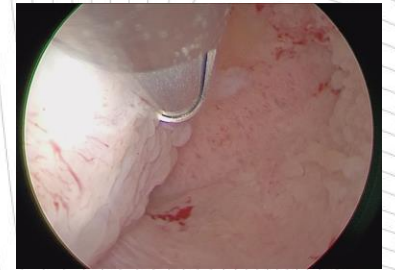


Figure 3: Hysteroscopic Myosure resection of UTROSCT