CERVICAL HEMANGIOMA MIMICKING MALIGNANCY

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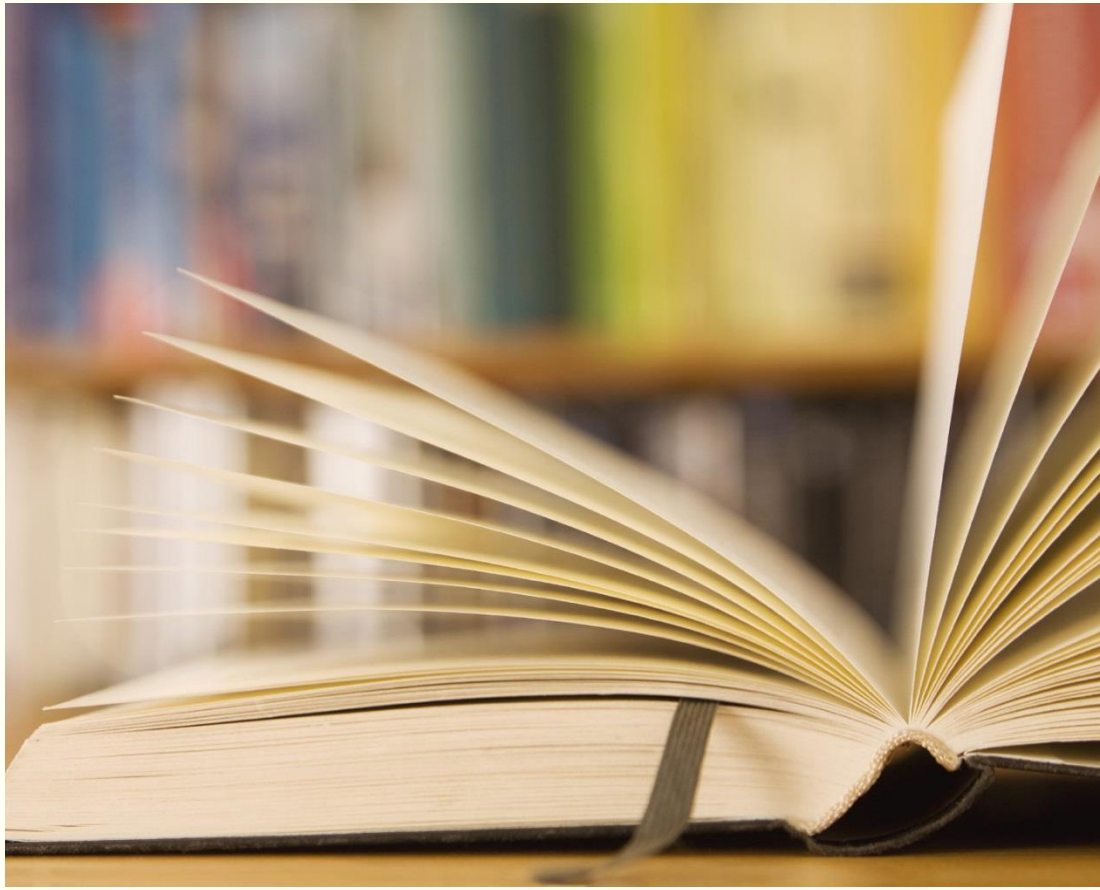
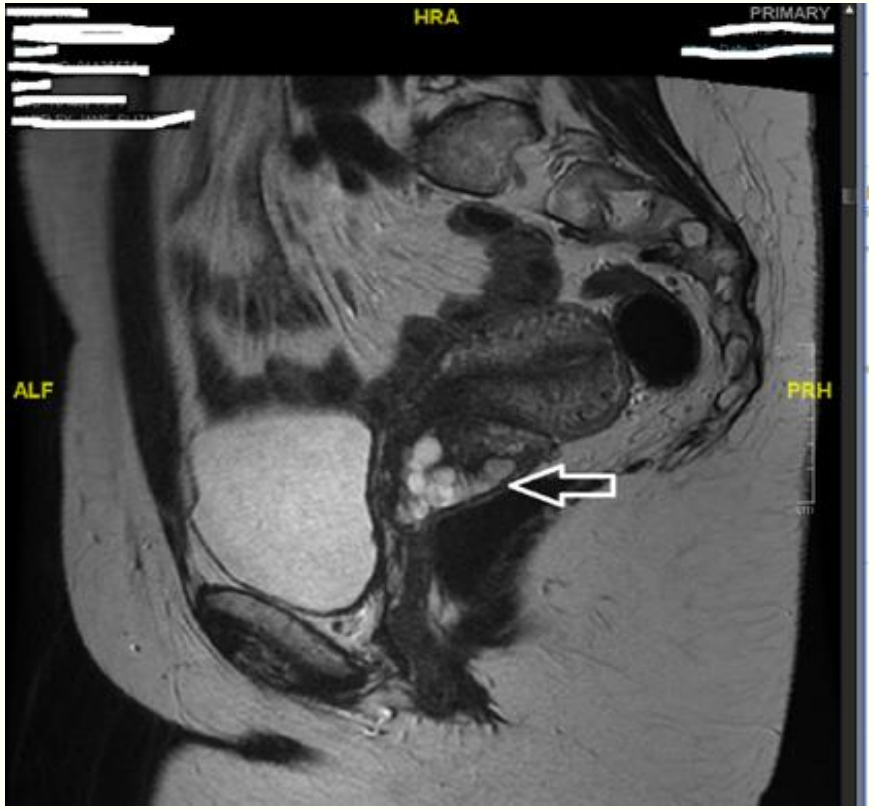
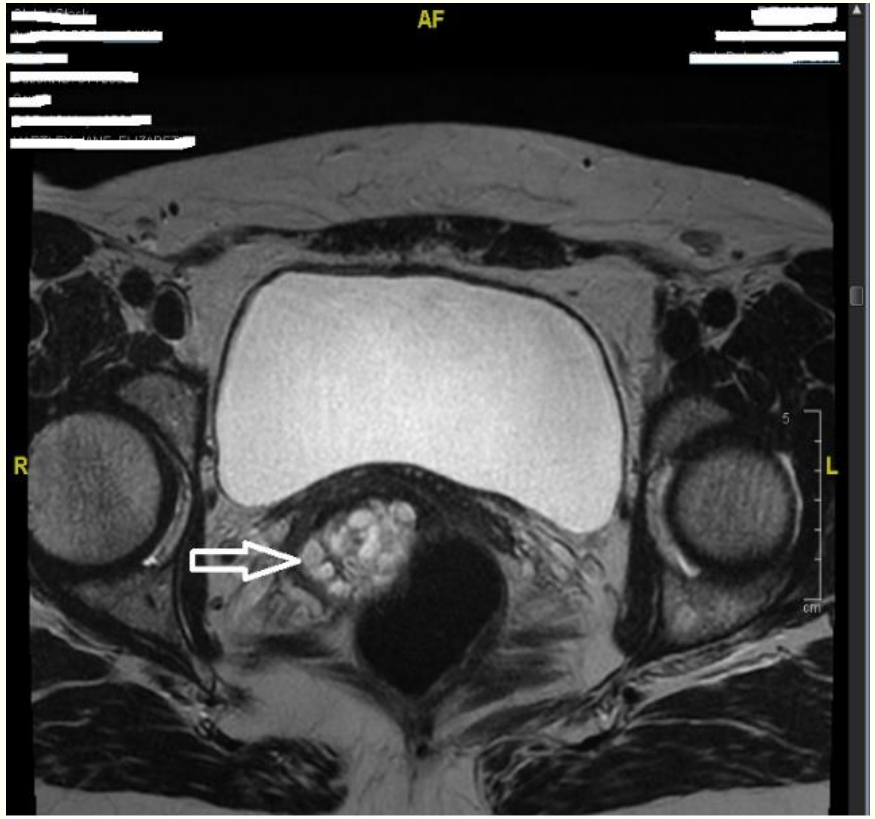


Case presentation

- 44-year-old lady, with chronic pelvic pain + new symptoms of cyclical pelvic pain + dysuria and back ache.
- Hx of endometriosis, on COCP
- MRI: large cluster of cysts in the cervix suspicious of adenoma malignum.
- LLETZ : florid endocervical glandular hyperplasia with numerous Nabothian cysts. No malignancy. The glands show strong diffuse **positive staining for ER and PR**
- MDT : laparoscopic hysterectomy and bilateral salpingectomy recommended
- Histological diagnosis: benign vascular malformation favoring hemangioma.
- Patient made an uneventful recovery

MRI of cervical hemangioma





A large cluster of cysts noted in the cervix appearing like an adenoma malignum.

MRI of Adenoma Malignum

Adenoma malignum (AM) is a rare variant of adenocarcinoma of the uterine cervix.

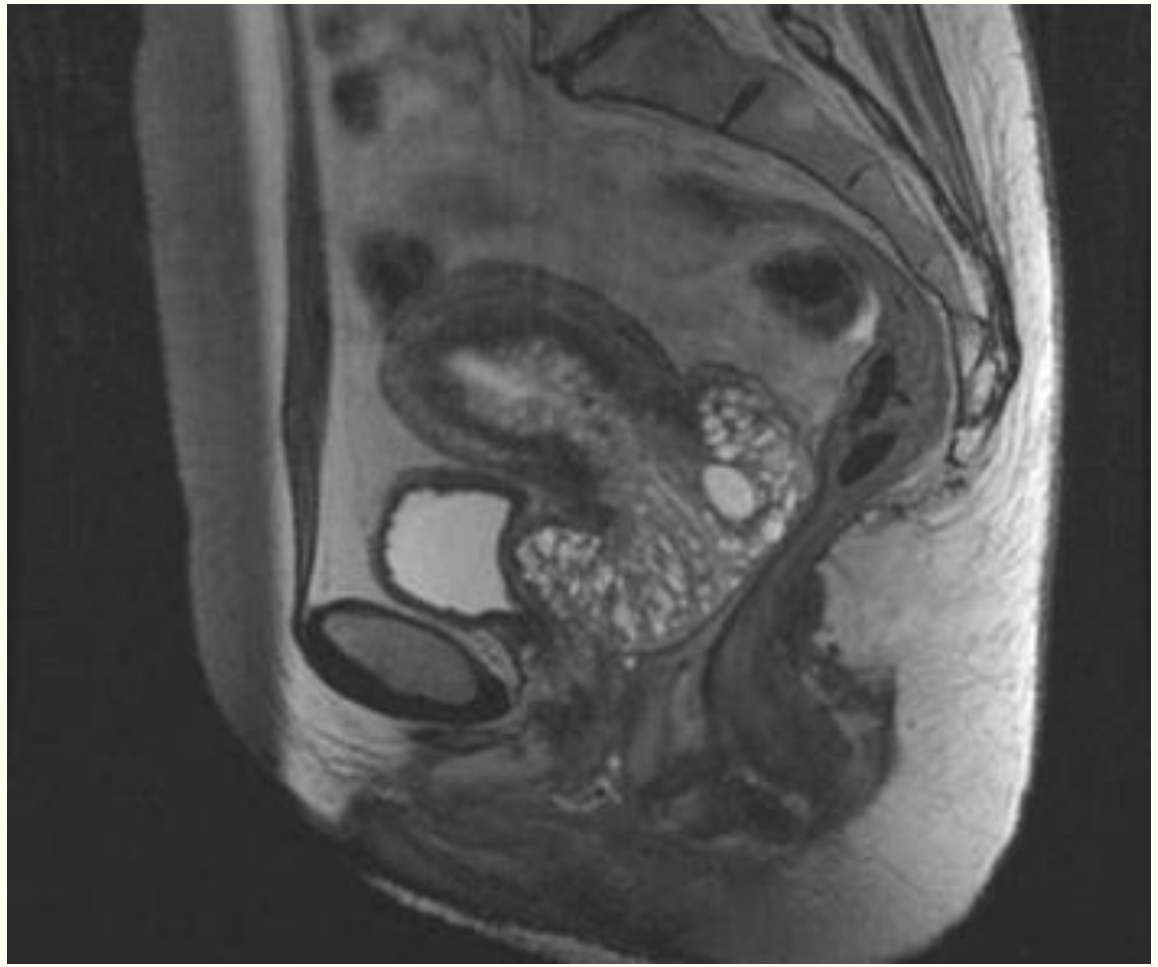
It comprises 1–3% of all cervical adenocarcinomas.

Exhibit an endophytic rather than an exophytic growth pattern.

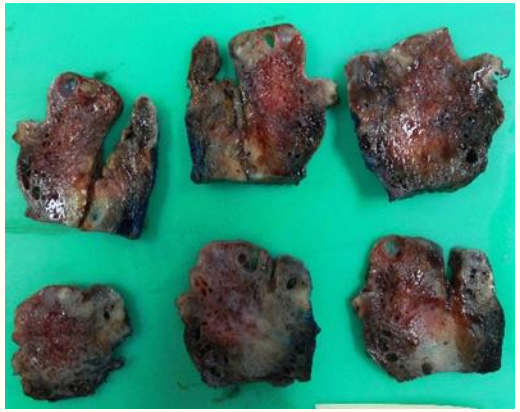
Mimics :

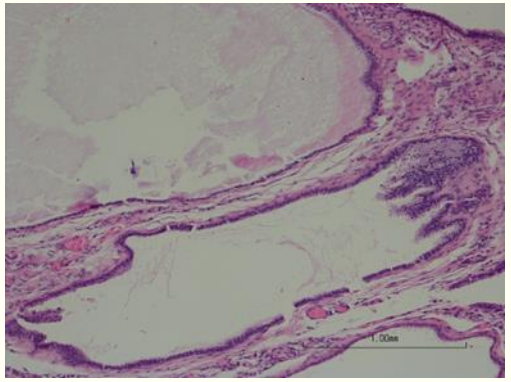
- multiple nabothian cysts
- uterine cervicitis,
- tunnel cluster,
- deep endocervical glands,
- endocervical hyperplasia,
- metaplasias,
- endometriosis
- infectious and reactive atypias,

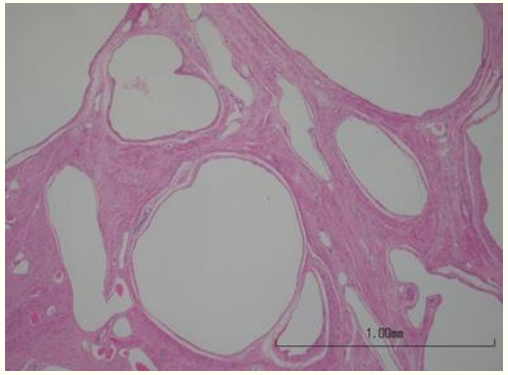
Even on MRI, it can be extremely difficult to differentiate between malignant adenoma malignum and benign glandular lesions



Histology







MACROSCOPY: *The cervix measures, 40 mm anterior/posterior and 55 mm transversally. On slicing the cervix shows multiple cysts beneath the ectocervix ranging between, 2 and 8 mm in maximum dimension, all of which contain mucoid material. Endocervix also contains multiple cystic spaces and has a spongy appearance.*

MICROSCOPY: *The cervix is expanded by numerous lymphovascular spaces many of which are thick walled, dilated and congested. These are present diffusely within the cervix and most prominent within the paracervical/parametrial tissue*

Classification

Haemangiomas are benign vascular lesions of the uterus and cervix that rapidly grows over a period and does not usually reduce in size.

- Capillary: seen at the top layer. More common
- cavernous haemangiomas: often found at the deeper layer, soft to touch.
- angiomyomas
- haemangio-endotheliomas.

Haemangiomas must be differentiated from reactive granulation tissue, which would contain inflammatory cells and fibrin, and also from angiosarcomas (a malignant variant of haemangioma), which exhibit increased mitotic activity and atypia

Etiology: Congenital and Acquired

CONGENITAL :

- Klippel-Trenaunay syndrome
- Hereditary hemorrhagic telangiectasia
- Tuberous sclerosis
- Blue rubber bleb nevus syndrome
- Maffucci syndrome
- Kasabach-Merritt syndrome.

Table 3. Etiology of Acquired Hemangioma

Physical Changes	Hormone Alteration (Especially High Estrogen Level)
1. Tissue injury	1. Menarche
2. Hypoxia	2. Pregnancy
3. Increased blood volume during pregnancy	3. Trophoblastic disease
4. Previous pelvic surgery	4. Endometrial carcinoma
5. Endometrial curettage	5. Maternal ingestion of diethylstilbestrol

Differential diagnosis

Table 2. Differential Diagnosis of Uterine Hemangioma

Characteristic	Hemangioma	Adenomatoid Tumor	Lymphangioma	Arteriovenous Malformation
Gross pathology	Dilated vascular spaces with adjacent brownish-color changes	Small indurated mass or swelling at uterine cornu	Clusters of thin-walled vesicles filled with clear fluid	The malformation gradually replaces the normal myometrium
Histopathology	Dilated vascular channels lined by a single flat layer of endothelium, contain blood cells	Irregularly arranged, dilated tubular channels and glandlike spaces lined by flattened or solid nests of cells	Thin-walled vessels not containing blood cells	A proliferation of arterial and venous vessels of various sizes with fistula formation between them
IHC				
vWF/CD31/CD34	+	−	+	+
Calretinin	−	+	−	−
Cytokeratin	−	+	−	−

Abbreviations: IHC, immunohistochemistry; vWF, von Willebrand factor.

MANAGEMENT

Investigations

- The definitive diagnosis relies on the final histologic examination.
- USS
- MRI
- Biopsy

Treatment

The best treatment for hemangiomas remains unclear.

Conservative treatments :

- carbon dioxide laser excision,
- knife excision,
- cryotherapy,
- radiotherapy,
- electrocauterization,
- internal artery ligation,
- uterine artery embolization,
- local excision,
- conization, and
- laser ablation.

Radiotherapy has been suggested as a possible treatment, but it would affect ovarian function as well.

Conservative treatment may be offered as a first-choice option before total hysterectomy.

Thus, it is also very important for pathologists to be aware of the diagnosis of uterine hemangioma, not only because of its possible life-threatening complications, but also because of the need for individualized treatments to avoid further complications or overtreatment

THANK YOU