

# Primary umbilical endometriosis: a case report and review of the literature

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**Abstract:** *Parietal endometriosis is defined by an ectopy of the endometrium (glandular tissue and stroma) in the abdominal wall, it represents 1 to 1.5% of cases of endometriosis, occurring most often after surgery, exceptionally this parietal endometriosis is said to be primitive, i.e. without a surgical history, hence the interest of our case, it was a 47 year old patient, multiparous, always regulated, hypertensive under treatment, with no surgical history, who presented with cyclic pain associated with an umbilical nodule, whose biopsy had come back in favor of umbilical endometriosis. The treatment consisted of a wide exeresis of the nodule associated with an exploration of the pelvis and an umbilical plasty.*

## Introduction :

Endometriosis is a frequent chronic pathology of young women, affecting 10% of women of childbearing age, first described in 1860[1-2]. It is defined by the presence of functional endometrial tissue (glandular tissue and stroma) that is ectopic, located at a distance from the endometrium and not connected to it, with a peak incidence between 25 and 30 years of age [3-4] with three categories: ovarian endometrioma (OMA), superficial endometriosis (SPE), characterized by lesions that are less than 5 mm deep, and deep endometriosis (DE) with deeper lesions

Deep endometriosis: pelvic (80 to 90%), digestive (5 to 15%) and urinary (2 to 4%), extrapelvic locations of endometriosis are less frequently encountered [1-2]. Parietal endometriosis is defined by the presence of functional endometrial tissue (glandular tissue and stroma) very often at the level of a scar or the umbilicus and represents 0.5 to 1% [1-2].

The umbilical location has been described in a majority of cases (about 60%), in women who have previously undergone laparoscopic surgery [6,7]. Umbilical scars, as well as removal of endometriotic tissue through the umbilicus, could play a role in the subsequent appearance of endometriosis lesions at this level [8], although some authors contest this theory [9].

Its clinical diagnosis is not easy, but it should be suspected in the presence of any bluish coloured umbilical nodule, sometimes painful with a brownish discharge, the evolution of which is regulated by the menstrual cycle. Ultrasound of the abdominal wall points to the diagnosis of umbilical endometriosis despite the absence of characteristic signs on imaging, the diagnosis of certainty is histological because of its resemblance to a primary tumour or a metastasis. Wide surgical excision is the treatment of choice. Through our reported case of primary umbilical endometrioma, we then review the recent literature on the subject.

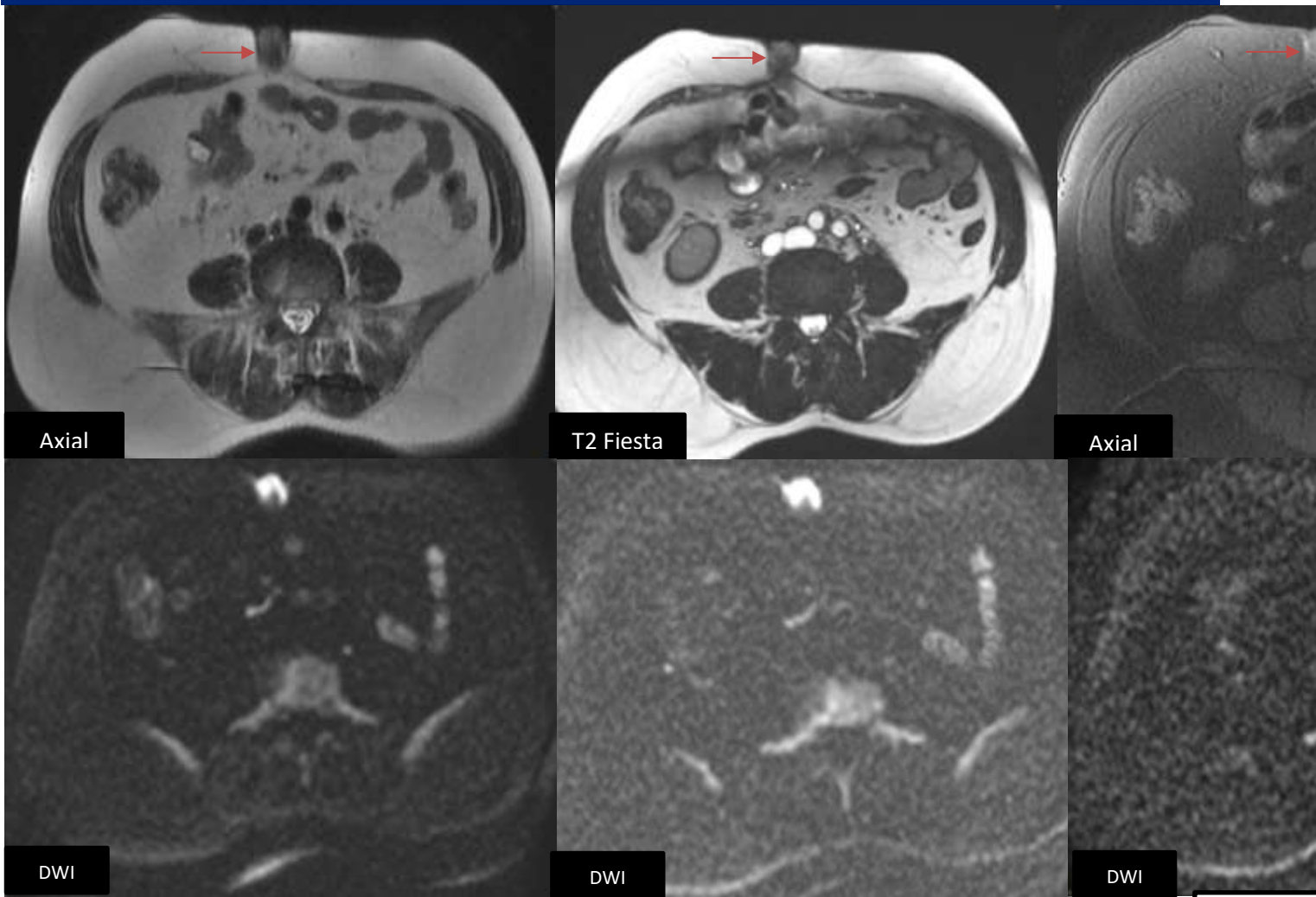
## Observation

The patient was 47 years old, multiparous, hypertensive, under treatment, never operated, and consulted for the appearance for five years of a nodule in the umbilicus, initially not very symptomatic, which was becoming more and more embarrassing and even painful depending on the position. Clinical examination found an umbilical nodule, about 03 cm in diameter, hard, mobile and sensitive with a discrete brownish colouration (Figure 1). There was no spontaneous or provoked umbilical discharge, and pelvic touching was unremarkable.



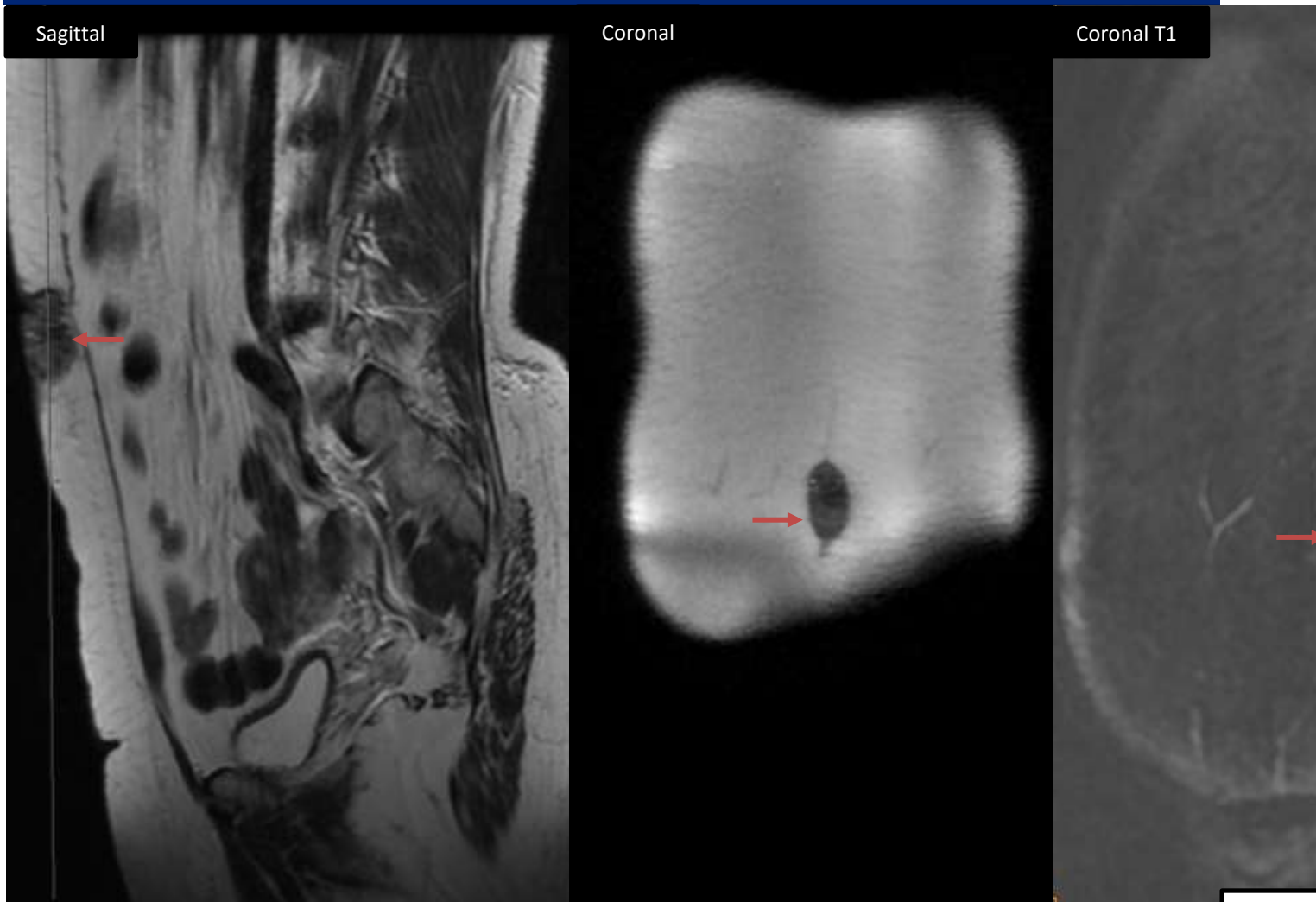
An abdominal ultrasound revealed a nodule of 02 cm in diameter reaching the linea alba with slight peri-lesional inflammation suggestive of umbilical endometriosis. The nodule was distinct from the fat.

Biopsy of the umbilical nodule was performed. The histological examination came back in favor of an umbilical endometriosis. MRI of the pelvis, done in the context of the search for another localization, is in favor of a lesion of the anterior abdominal wall, at the umbilical level, Adenomyosis associated with signs of deep endometriosis (thickening of the utero-sacral ligaments and kissing ovaries), Absence of ovarian endometrioma in bilateral



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*bilical endometriosis:  
Abdominal MRI objectifying a lesion of the umbilical abdominal wall, (orange arrow) rounded, described in  
hyposignal T2, hypersignal T1 and diffusion hypersignal (red contours)*



*Umbilical endometriosis: Abdominal MRI:  
objectifying an umbilical lesion, (orange **arrow**) rounded, in T2 hyposignal, intensely enhanced after  
gadolinium injection,*

The surgical intervention was decided but not done, refused by the patient, she was put on hormonal treatment with clinical improvement.

### Discussion

Endometriosis of the abdominal wall (EPA) is a rare form of endometriosis, corresponding to the presence of endometriotic tissue (gland and/or endometrial stroma) in the abdominal wall. It can infiltrate all layers of the abdominal wall: the skin, the subcutaneous tissue, the muscles and their aponeurosis, and even the peritoneum. Its prevalence is estimated, according to Leite et al, between 0.03 and 3.5% [4]. This is a fairly specific form of deep endometriosis since it is associated with a history of caesarean section in 75% of cases [5], whereas it is only associated with pelvic endometriosis lesions in 0 to 34% of cases depending on the series [6,7]. Umbilical endometriosis, known as Villar's nodule, is a rare localization of abdominal wall endometriosis, especially when it is primary, in our review of the literature we found 03 described cases of primary umbilical endometriosis.

Umbilical hernia, pyogenic granuloma, hemangioma and melanoma are all differential diagnoses of umbilical endometriosis. However, it is mainly an umbilical metastasis of an abdominopelvic tumor called Sister Mary Joseph's nodule that must be differentiated.

The diagnosis of certainty of umbilical endometriosis is histological, showing an appearance similar to that of ectopic endometrium, with the presence of endometrial glands bordered by a columnar epithelium and endometrial stroma made up of small round cells.

The assessment of extension is based on the history with the search for dysmenorrhoea, dyspareunia, dysuria, gynaecological examination and pelvic ultrasound or pelvic MRI to confirm the existence of other locations, particularly pelvic.

Laparoscopy is reserved for symptomatic cases and is performed for diagnostic and therapeutic purposes.

The reference treatment according to the recommendations of the CNGOF remains wide surgical resection with 1 cm margins, under general or local anaesthesia depending on the size and degree of infiltration [8]. In case of large resection, a prosthetic plate may be necessary to close the abdominal wall and limit the risk of eventration [4]. Ding et al, in a series of 227 cases, reports a low rate of efficacy of hormonal treatment on pain.

Surgical resection can be complex, requiring a large excision with important functional and aesthetic consequences [9]. For these and other reasons, our patient refused surgery and preferred to endure the symptoms rather than incur the risks of surgery.

Minimally invasive therapeutic alternatives have been developed such as HIFU, alcoholization, cryotherapy and radiofrequency

### Conflicts of interest

The authors declare that they have no conflicts of interest

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