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### RESEARCH ARTICLE

#### UTERINE FIBROMA ASSOCIATED WITH STUMP (SMOOTH MUSCLE TUMOUR OF UNCERTAIN MALIGNANT POTENTIAL): CASE REPORT

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#### Manuscript Info

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#### Abstract

Uterine smooth muscle tumours of uncertain malignancy (USMTs) are complex tumours for which histology is the gold standard of diagnosis. We report here the case of a 37-year-old patient who consulted us with pelvic pain, and whose pelvic MRI had revealed a cyst in the right ovary associated with a myomatous uterus. The patient underwent an exploratory laparotomy.

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#### Introduction:-

The morphological characteristics of STUMPs make it impossible to classify them formally as benign or malignant tumours. In 2023, the WHO validated the histoprognostic criteria, which are the presence or absence of tumour necrosis with clear contours, with a transition between the perennial zone and the zone of necrosis. [1]. These tumours constitute a group of rare tumours whose histological diagnosis, classification, treatment, follow-up and prognosis have not yet been fully understood [2,3]. Postoperative diagnosis of STUMP by a pathologist is difficult given the absence of standard diagnostic criteria. As a result, overdiagnosis of this type of tumour has increased over the years [4].

#### A. Patient and Observation:-

The patient was 37 years old and had undergone polomyomectomy a year ago. The histological result was consistent with muscle proliferation, showing moderate atypia with mitoses, while immunohistochemistry showed a smooth muscle tumour with a focally epithelioid architecture and malignant potential. A re-reading of the slides at the University Hospital was requested, which determined an appearance in favour of a smooth muscle tumour of uncertain malignancy potential (STUMP). The patient now presented with pelvic pain. Clinical examination on admission found the patient to be conscious, normotensive, normocardic, eupnoeic and apyretic. Gynaecological examination revealed an inflamed cervix with clean vaginal walls, and vaginal touch and abdominal palpation revealed a uterus of normal size with no palpable latero-uterine mass. A pelvic MRI was performed, which showed a large right paramedian pelvic cystic formation measuring 86x65x120mm, which appeared to have developed within the right ovary, with a 30mm endometriotic component, small left ovarian follicles, a small uterine fibroid measuring 20mm in diameter, and a small posterior intramural fibromatous core measuring 9mm (Figure 1). A CA125 was negative. The patient underwent a pre-operative assessment and a pre-anaesthetic visit and was scheduled for exploratory laparotomy.

Surgical exploration revealed an inflamed pelvis with a huge posterior cyst adherent to the sigmoid, extending into the Douglas, after adhesiolysis between the genital tract and the digestive tract, a 10 cm cyst was found in the right paratubal area, a right cystectomy was performed, the rest of the exploration revealed an endometriotic cyst of the

right ovary which was resected, the left adnexa was unremarkable, a biopsy of the uterine fundus was performed. The post-operative course was straightforward.

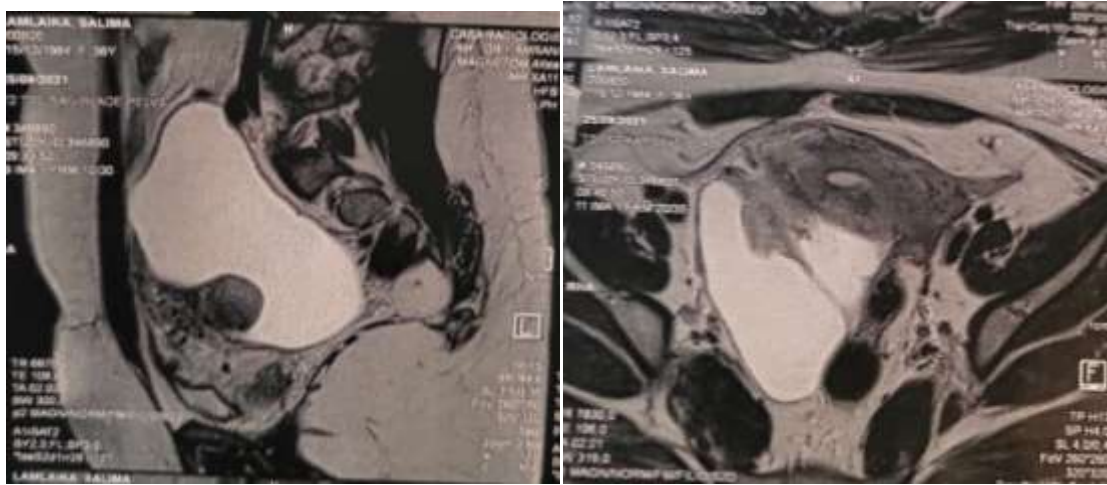


Figure 1:-

### B. Discussion:-

STUMPs account for 1/3 of uterine sarcomas and 1.3% of uterine cancers. The clinical picture is identical to that of uterine leiomyomas, so there is no clinical specificity for suspecting this diagnosis, and there are no imaging techniques to distinguish them [5]. Histologically, smooth muscle tumours can be classified as benign or malignant using three criteria. These criteria include nuclear atypia, mitosis index and the presence of tumour necrosis. Thus, leiomyosarcomas are defined by the presence of spindle-shaped cells with nuclear atypia, more than ten mitoses and the presence of tumour necrosis. Two of these criteria are necessary for a diagnosis of malignancy. A STUMP is inferred when one of the malignancy criteria is present and the second is difficult to assess [1]. Other methods have been proposed, in particular immunohistochemistry with the study of the progesterone receptor and cytochrome p53 or even Phospho-Histone H3 (PHHH3) [6, 7]. Surgery is the most commonly used option worldwide. The surgical procedure consists of a total hysterectomy with or without bilateral adnexectomy. Conservative treatment such as myomectomy may be considered in young women who wish to become pregnant. There is no established consensus regarding the management of this condition. There are no studies demonstrating the usefulness of hormone therapy and chemotherapy in these borderline uterine tumours. [5]. STUMPs have a better prognosis than leiomyosarcomas. Various studies have found a significantly lower recurrence rate compared with leiomyosarcoma, and a 5-year survival rate ranging from 92 to 100% of patients [1]. Given the uncertain evolution of these tumours, patients should receive close, long-term clinical and radiological follow-up [8, 9].

### Conclusion:-

STUMPs are a rare entity, and cannot be evoked clinically or by imaging. Histological examination is the cornerstone of positive diagnosis, and the only way to differentiate these borderline tumours from uterine sarcomas. The diagnosis is always made on the operative specimen, despite the fact that the anatomopathological diagnosis is delicate and postoperative management has not been codified. Rigorous monitoring is necessary to ensure that recurrence or metastasis is not overlooked.

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