Pure Uterine Lipoma: A Rare Case with Review of Literature

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Abstract- Pure uterine lipomas are exceptionally uncommon benign mesenchymal tumors composed entirely of mature adipocytes. Their rarity and nonspecific clinical symptoms often delay diagnosis until histopathology provides confirmation. We present a case of pure uterine lipoma in a 63-year-old woman clinically diagnosed as Leiomyoma.

Key word: Lipoma, Uterus, Postmenopausal women.

I. INTRODUCTION

Lipomatous tumors of the uterus are very rare, approximately 0.03 to 0.12% of all uterine neoplasm, with pure lipomas being the least common subtype (1, 2, 3). They typically occur in postmenopausal women and located in the fundus (4, 5). This tumor clinically and radiologically mimics leiomyomas or adnexal tumors.

II. CASE PRESENTATION

A 63-year-old postmenopausal woman presented with lower abdominal pain, pelvic heaviness, and abnormal vaginal discharge. Ultrasound demonstrated a large echogenic intracavitary lesion, initially suspected to be a submucosal fibroid (Fig 1).

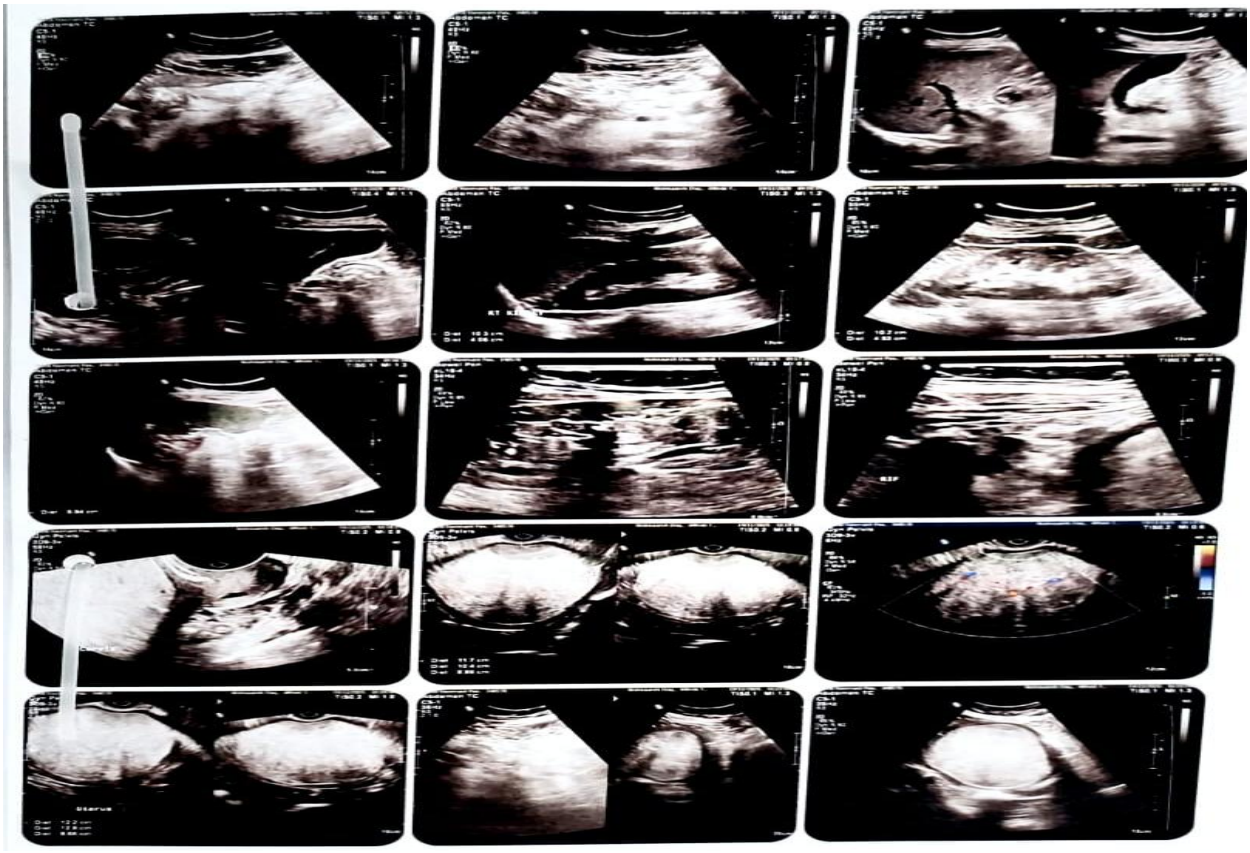

Fig. 1 USG of abdomen and pelvis shows a large well defined echogenic lesion in endometrial cavity.

MRI revealed fat-containing characteristics, raising suspicion for a lipomatous lesion. She underwent total hysterectomy with bilateral salpingo-oophorectomy. External surface of uterus was globular. Cut surface of which showed a well circumscribed encapsulated tumor obliterating entire endometrial cavity, measuring 10.5 cm in maximum diameter and was homogenous yellow (Fig. 2).

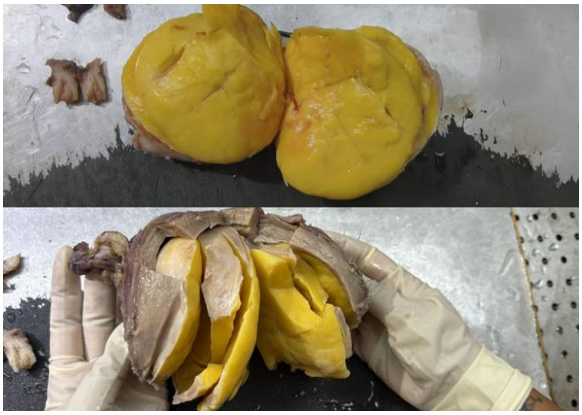

Fig.2. The uterine lipoma gross specimen showing a yellow, well-defined mass inside the uterine corpus.

Microscopically, the tumor consisted of mature adipocytes separated by delicate fibrovascular septa. Smooth muscle cells were confined to the periphery, and no atypia or mitosis, areas of hemorrhage or necrosis were seen. Also lipoblasts were not seen, considering these features diagnosis was offered as Pure Lipoma in uterus. (Fig 3)

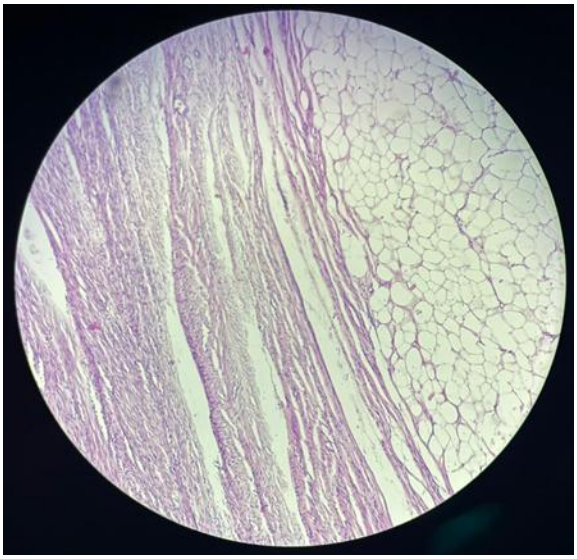

Fig. 3 (a): Lipoma with adjacent myometrium (100x, H&E).

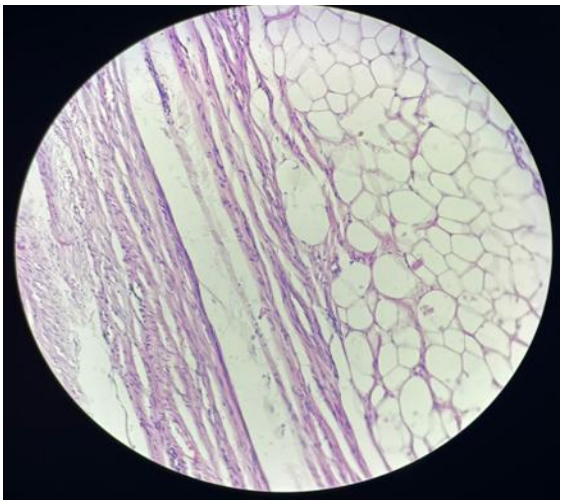

Fig. 3 (b): Tumor shows mature adipocytes with smooth muscle cells at periphery (200x, H&E).

III. DISCUSSION

Pure uterine lipomas are extremely rare and often misdiagnosed preoperatively due to their resemblance to leiomyomas, lipoleiomyomas, or ovarian dermoid cysts on imaging. Because adipose tissue is not normally present in the uterus, several theories including smooth muscle metaplasia, embryonic cell rest differentiation, and perivascular adipocyte proliferation have been proposed to explain their origin (4). Histopathological examination reveals mature adipocytes with no mitosis or atypia, divided by thin fibrovascular septa, and smooth muscle cells confined to the periphery. In postmenopausal women, uterine lipomas can be used as a differential diagnosis for uterine mass because of their good prognosis (6). Ultrasound may show a hyperechoic mass, while MRI is the best imaging modality for confirming the lipomatous nature of the mass and its precise location, as well as distinguishing between mixed and pure types, similar observation was noted in our case. While preoperative diagnosis is possible, histopathological examination is required to rule out malignancy. Histopathology remains the gold standard for diagnosis, distinguishing pure lipomas from other lipomatous tumors (7).

IV. CONCLUSION

This case highlights the importance of considering pure uterine lipoma in the differential diagnosis of

uterine masses in postmenopausal women. While imaging can guide clinical suspicion, definitive diagnosis requires histopathological examination. Surgical excision is curative and prognosis is excellent.

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