

Pure Uterine Lipoma: A Common Tumour at an Uncommon Site

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ABSTRACT

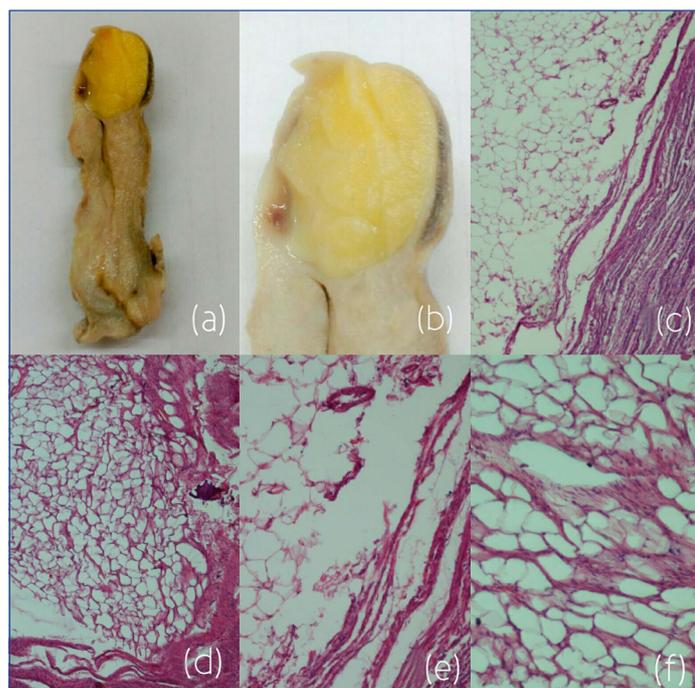
Although lipomas are very common tumours, pure uterine lipomas are extremely rare. Their reported incidence is 0.03-0.2%. They commonly present with symptoms similar to that due to leiomyoma except that they occur in post menopausal elderly females. We report a case of 70-year-old elderly female, who presented with third degree uterovaginal descent. A total vaginal hysterectomy was done for her. The hysterectomy specimen showed presence of a well circumscribed uterine fundal lipoma. We report this case because of its rare occurrence in the uterine fundus.

Keywords: Fundus, Hysterectomy, Leiomyoma, Uterus

CASE REPORT

A 70-year-old female, post menopausal since 28 years and married since 45 years, came with complaints of a growth protruding through the vagina. She had no history of difficulty in micturition, burning micturition, previous allergy, previous blood transfusion or intake of hormone replacement therapy drugs. On general examination, vital parameters were within normal limits. On per speculum examination cervical erosion and third degree uterovaginal descent with cystocele and a rectocele was noted. Vagina was healthy on examination. Uterus was atrophic on per vaginal examination. Investigations revealed haemoglobin of 9.1 gm/dl, total WBC count of 5600/mm³ and platelet count of 2.73 lacs/mm³. Serum Cholesterol levels were normal (185 mg%) while serum triglyceride levels were raised (274mg%).

A vaginal hysterectomy with abdominoperineal repair was done and hysterectomy specimen was sent for histopathological examination.



[Table/Fig-1]: (a) Cut surface of the uterus showing a well circumscribed lipoma; (b) Closer view of the well circumscribed fundal lipoma; (c) Tumour composed of lobules of mature adipocytes rimmed by myometrium (H&E 10X); (d) Mature adipose tissue with a focus of calcification (H&E 10X); (e) Higher magnification showing the adipose tissue rimmed by the muscle fibres (H&E 40X); (f) Higher magnification showing mature adipose tissue intermixed with smooth muscles focally (H&E 40X).

Gross and Microscopy

A simple hysterectomy specimen measuring 9 X 4 X 1.5 cm was received. The corpus measured 4.5 X 4 X 1.5 cm while cervix measured 4.5 X 4 X 1.5 cm. On cutting, a well circumscribed, encapsulated yellowish mass measuring 2.5 X 2 X 1.4 cm was identified along the uterine fundus [Table/Fig-1a,b]. A slit like endometrial cavity was noted. The endometrial thickness was 0.1 cm while the myometrial thickness was 0.9 cm. Ectocervix was epidermidized while endocervix was unremarkable.

Microscopy revealed a well encapsulated tumour composed of mature adipocytes arranged in lobules separated by thin fibrovascular septae. The tumour was surrounded by rim of myometrial muscle [Table/Fig-1c-f]. Endometrium showed cystic atrophy while cervix showed changes of chronic cervicitis with squamous metaplasia. No leiomyoma was identified.

Immunohistochemistry (IHC) revealed positivity of the adipocytes for S-100 while they were negative for Desmin and SMA. The patient was discharged as she was stable postoperatively and was not having any new complaints on follow up examination.

DISCUSSION

Pure lipomatous tumours of the uterus are very rare in occurrence. According to Willen R et al., a pure lipoma should be diagnosed only if smooth muscle cells are present at the periphery [1].

Most women who were diagnosed to have uterine lipomas belonged to the postmenopausal age group [2]. These lesions can be asymptomatic at presentation and may be incidentally diagnosed or can more commonly present with symptoms like that of a leiomyoma which include abdominal pain and vaginal bleeding [3]. Radiologically, the lesions may be missed and only MRI could be valuable in detecting the fat content of the tumour [4]. These tumours commonly measure 5-10 cm in size and are found in the uterine corpus [5].

Various theories have been proposed to explain the histogenesis of these tumours. Metaplasia of smooth muscles or cells of connective tissue, fatty infiltration or degeneration of connective tissue, proliferation of perivascular fat cells or misplaced embryonic fat cells are some of the theories [6]. Some case reports have supported the idea of these tumours arising from the smooth muscle metaplasia, by demonstrating SMA activity in the adipocytes in the tumour. However, in our case, the adipocytes showed SMA negativity so, did not support the theory [7]. Other theories state that they could also be a result of migration of pluripotent cells along the uterine nerve and vessels [7,8]. It could be associated with changes in fat

metabolism at a postmenopausal age, as this is the most common age group of presentation [9].

Our case was a post menopausal woman, the commonest age group for these tumours in the literature studied. However, she presented with a third degree uterovaginal descent with cystoectocele. Hence, the diagnosis in this case was incidental. The site of the lipoma was in the fundus of the uterine corpus. IHC markers SMA and S-100 were done. The tumour cells were negative for SMA while S-100 highlighted the nucleus of the cells confirming them to be adipocytes.

Akyildiz EU et al., documented a similar case of a post-menopausal woman who came with abdominal pain and was clinically thought to have a leiomyoma [10]. Histopathological examination revealed the presence of a lipoma in the uterine corpus. The muscle cells in the periphery in this case were reactive for SMA while S-100 highlighted the nucleus of the adipocytes, similar to the findings in our case. Hence, a diagnosis of pure uterine lipoma was made.

Another case report by Garg A et al., documented a case of a lipoma of the uterine corpus in a 60-year-old woman who presented with abdominal pain and which was radiologically thought to be a leiomyoma/leiomyoma with fatty degeneration [11]. IHC markers were not done in this case.

A case report of Vilallonga R et al., documented a case of 48-year-old female showing presence of a uterine lipoma with a co-existent ovarian thecoma [12]. In our case the ovaries were normal. The smooth muscle cells in the periphery stained positive for vimentin and focally for actin, but were negative for other markers like CD10, CD99, CD34, and HMB45.

CONCLUSION

Pure uterine lipoma is very rare benign uterine tumour which presents with clinical signs similar to that of leiomyoma. They

may be missed on radiological examination causing a delay in the diagnosis. Treatment of the tumour is simple hysterectomy if the patient has excessive pain or vaginal bleeding. This case highlights the unusual site of presentation of a very common benign tumour and also creates an awareness about its existence to prevent a delay in the diagnosis and the accompanying morbidity. Further, it makes us aware that such tumours could be an incidental finding on hysterectomy specimens.

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