

Lipoleiomyoma of uterus in a postmenopausal woman

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ABSTRACT

Lipoleiomyomas are uncommon benign neoplasms of uterus and are considered to be a variant of uterine myomas. Their reported incidence varies from 0.03 to 0.2%. Lipoleiomyoma consists of variable proportion of mature lipocytes and smooth muscle cells. These tumors generally occur in asymptomatic obese perimenopausal or menopausal women. We report this case of uterine lipoleiomyoma because of its rarity.

Key Words: Lipoleiomyoma, smooth muscle, uterus, menopause

INTRODUCTION

Lipomatous uterine tumors are unusual benign neoplasms.^[1,2] Histologically, these tumors comprise a spectrum including pure lipomas, lipoleiomyomas and fibrolipomyomas. Lipoleiomyoma is a very rare lesion of the uterus occurring primarily in obese perimenopausal and post menopausal patients. The tumor consists of long intersecting bundles of bland, smooth muscle cells admixed with nests of mature fat cells and fibrous tissue.^[2-4] We report a case of lipoleiomyoma that arose in the uterus.

CASE REPORT

A 50-year-old postmenopausal woman presented with increased frequency of per vaginal bleeding since 6 months and distension of abdomen since 15 days. The patient's history revealed that she had attained menarche at the age of 14 years, had regular menstrual cycles of 4–5 days duration and moderate intensity at 28 days interval. She attained menopause 2 years back.

Gynecological examination revealed no abnormalities of the vulva, cylindrical vaginal portion of the cervix and no evident pathological change was detectable with clinical examination. Findings of ultrasonography examination suggested bulky uterus with thickened endometrium of 6 mm

and hyperechoic mass suggestive of myoma of posterior wall of uterus, measuring 3.5 cm in diameter. In addition, transvaginal sonography revealed hyperechoic lesion of 3.5 × 3.5 cm in the posterofundal region. Also, there were two small subserosal leiomyomas of 0.5 cm diameter each. Both the ovaries showed follicular cysts measuring 3.3 × 3.3 cm each and tubes were normal in appearance.

All the standard serological and hematological parameters were within normal range. The patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy because of multiple leiomyomas.

On gross examination of the specimen, the uterus measured 8.5 × 6.1 × 5 cm and had three intramural and subserosal well-circumscribed round masses. The biggest nodule which was measuring 3.5 cm in diameter differed from a typical appearance of uterine leiomyoma by being pale yellow and having a somewhat softer consistency on its cut surface [Figure 1]. The other two leiomyomas, each of 0.5 cm diameter, showed a coarsely whorled pattern with grayish white appearance on their cut surface. The serosal surfaces of the uterus were normal. Cut section of ovaries showed

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follicular cysts of 3.5 cm diameter each. The fallopian tubes appeared grossly normal.

Histological examination of the biggest nodule showed a mixture of bland, spindle-shaped smooth muscle cells without nuclear atypia in a whorled pattern with admixed mature adipocytes. The nuclei of the smooth muscles were elongated and had finely dispersed chromatin and small nucleoli. Between these muscle cells, a significant amount of fat cells were visible. The adipose component was entirely mature without any lipoblasts [Figures 2-3]. Based on the above findings, the tumor was diagnosed as a benign lipoleiomyoma. Sections from the other fibroids showed classical histomorphology of conventional uterine leiomyomata. The endometrium showed changes of simple hyperplasia without atypia. Sections from both the ovaries showed follicular cysts with the tubes being unremarkable histologically.

DISCUSSION

Lipoleiomyoma is an unusual fatty tumor. Myolipoma of soft tissue was firstly described 1991 by Meis and Enzinger. These tumors showed characteristic histological findings, being composed of benign smooth muscle and mature adipose tissue. Similar tumors in the uterus are known as lipoleiomyomas.^[5] Lipoleiomyomas occur in different locations including cervix and ovaries.^[2] It is suggested that lipoleiomyomas result from fatty metamorphosis of uterine smooth muscle cells which can proceed to form localized or diffuse mature adipocyte tissue in leiomyoma or in the myometrium rather than fatty degeneration.

The differential diagnosis of the lipomatous mass in the pelvis includes benign cystic teratoma, malignant degeneration of cystic teratoma, non-teratomatous lipomatous ovarian tumor, benign pelvic lipomas, liposarcomas and lipoblastic lymphadenopathy. Association of lipomatous uterine tumors and endometrial carcinomas with lipoleiomyosarcoma arising in uterine lipoleiomyomas has been reported.^[6]

The pathogenesis remains obscure. Immunocytochemical studies confirm the complex histogenesis of these tumors, which may arise from mesenchymal immature cells or from direct transformation of smooth muscle cells into adipocytes.^[1,4,7,8] A number of various lipid metabolic disorders or other associated conditions, which are associated with estrogen deficiency as occurs in peri or post menopausal period, possibly promote abnormal intracellular storage of lipids.^[1]



Figure 1: Sectioned surface of uterine lipoleiomyoma showing distinct pale yellow appearance

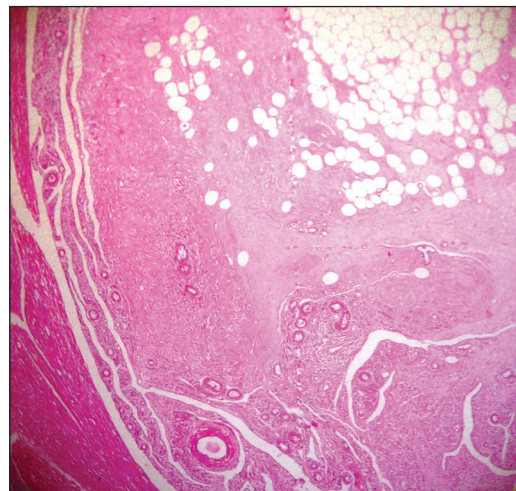


Figure 2: Well-circumscribed proliferation of bland, spindle-shaped smooth muscle cells without nuclear atypia in a whorled pattern with admixed mature adipocytes (H and E, x10)

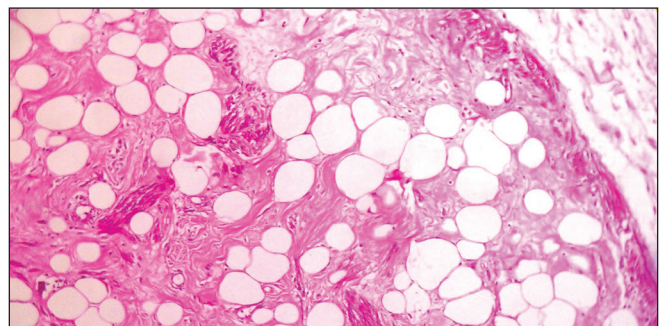


Figure 3: Smooth muscle cell proliferation admixed with mature adipocytes (H and E, x40)

Lipoleiomyomas when asymptomatic require no treatment and are clinically similar to leiomyomas. So, it is important to differentiate these tumors from ovarian teratoma, which requires surgical excision.

Lipoleiomyomas are benign tumors of the uterus that do not affect mortality.

Though imaging plays an important role in preoperative diagnosis and localization of the lipoleiomyoma, it is the final pathological examination that confirms the diagnosis.

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