

Lipoleiomyoma of Uterus – Report of 8 cases

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Summary

Lipoleiomyoma of the uterus is a rare tumor. It is differentiated from leiomyoma by the presence of diffuse or scattered lobules of fatty tissue. Pathogenesis of this tumor is not clear but most probably they represent tumor metaplasia within a leiomyoma. We present a study of 8 cases of uterine lipoleiomyoma.

Introduction

Lipoleiomyoma of the uterus is an uncommon tumor with incidence of 0.03 to 0.2 percent of uterine leiomyomas in uterus (Willen et al 1978., Pounder 1982, Bajaj et al 2000). It is composed of smooth muscle cells along with diffuse or scattered lobules of adipose tissue (Logani et al 1998, Bajaj et al 2000). Most common site of origin in the uterus is intramural but rarely it may be seen arising in the cervix and from parametrium in the broad ligament (Bajaj et al, 2000). It has been named as fibromyolipoma, myolipoma, fibrolipoma, mixed lipoma, hamartoma of uterus and lipomyoma (Brandfass and Everts 1955, Gupta et al 1988). The rarity of this tumor prompted us to present a series of 8 cases diagnosed on routine histological examination of hysterectomy and myomectomy specimens.

Material and Methods

A retrospective analysis of histopathological records of 1104 hysterectomy and myomectomy specimens received in the Department of Pathology,

Government Medical College, Chandigarh, in the years 1995-2000 was conducted. All those cases where the diagnosis was leiomyoma with presence of adipose tissue were selected for a detailed study. The haematoxylin and eosin (H & E) stained sections were studied.

Observations

Out of 1104 cases of leiomyomas diagnosed on hysterectomy and myomectomy specimens. Only 8 cases showed the presence of mature adipose tissue interspersed between smooth muscle bundles. Out of these 8 cases, 7 were received as hysterectomy specimens and 1 was a myomectomy specimen. The age of patients ranged from 27 to 50 years (mean 42 years). Location of tumor was intramural in 4 cases, subserosal in 1 case both intramural & subserosal (multiple site) in 2 cases, and intramural, subserosal and cervical (multiple site) in 1 case. Number of tumors were multiple in 6 cases.

On gross examination, size of tumors varied from 0.4 to 15 cm. In 3 cases, there were present local

Table 1 : Clinicopathological Features of Lipoleiomyoma

| Sr. No. | Age | Chief Complaint | Clinical or U/S Diagnosis | Gross Examination | | | | | Microscopic Examination | | | | | | |
|---------|-----|---|---------------------------|------------------------------|---------------|--------------------------------|-----------------------------|--|-------------------------|---------|---------------|---------------|----------------|---------------|--|
| | | | | Type of specimen received | No. of tumors | Site | Size | C/S | Adipose Tissue | | Hyalinization | Calcification | Mucoid changes | Other changes | |
| | | | | | | | | | Focal | Diffuse | | | | | |
| 1 | 27 | Irregular periods | Fibroid Uterus | Myomectomy | 2 | Intramural | 4-8 cms | Whorled, area of calcification present | - | + | - | - | - | - | - |
| 2 | 29 | Menorrhagia Pain Abdomen | Fibroid Uterus | Myomectomy | 1 | Subserosal | 15cms | Whorled, cystic change | - | + | - | - | - | - | - |
| 3 | 38 | Menorrhagia | Fibroid Uterus | Total abdominal hysterectomy | 5 | Subserosal Intramural Cervical | 4-8 cms cervical in 2.5 cms | Whorled cervical Fibroid grey/yellow areas | + | - | - | - | - | - | - |
| 4 | 45 | Menorrhagia | Fibroid Uterus | Panhysterectomy | Multiple | Intramural | 5-10 cms | Whorled, Focal white areas | - | + | - | - | + | - | - |
| 5 | 45 | Irregular periods | Fibroid Uterus | Panhysterectomy | 1 | Intramural | 5 cms | Whorled, myxoid areas | - | + | - | - | + | - | - |
| 6 | 46 | Menorrhagia Pain Abdomen | Fibroid Uterus | Panhysterectomy | 3 | Intramural | 1.5 cms | Whorled larger tumor show area of necrosis Haemorrhage, pale Yellow and grey White areas | + | - | - | - | - | - | Symplastic leiomyoma with changes of inflammation Bizarre cellular pattern, giant cells paucity of mitosis |
| 7 | 47 | Abdominal tuberculosis X 20 years Took ATT. Irregular Periods | Fibroid Uterus | Panhysterectomy | Multiple | Subserosal Intramural | .6 - 4.2 cms | Whorled | + | - | - | - | - | - | - |
| 8 | 50 | Post menopausal bleeding | DUB | Panhysterectomy | Multiple | Subserosal intramural | 6 - 2.5 cms | Whorled | - | + | - | + | - | - | - |

grayish white and grayish yellow areas. Microscopic examination revealed interlacing bundles of smooth muscle fibres with supporting fibrous tissue and having varying sized lobules and aggregated mature adipose tissue scattered diffusely. (Figure 1). In addition, hyalinization was seen in 5 cases, calcification in 3 cases and myoxid change in 2 cases. One case was diagnosed as symplastic leiomyoma having bizarre cellular pattern, symplastic giant cells but paucity of mitosis. One case of cervical lipoleiomyoma was also associated with changes of chronic cervicitis (Table 1).

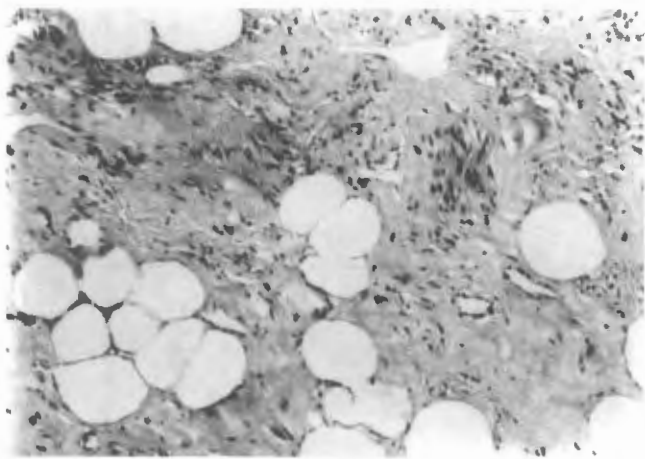


Figure 1 : Photomicrograph showing lobules of mature adipocytes present within a leiomyoma (HEX 100).

Discussion

Lipomatous lesions of the uterus are rare with an incidence of 0.03 to 0.2 percent of uterine leiomyomas (Willen et al 1978, Pounder 1982, Bajaj et al 2000). The tumor is more common in perimenopausal and menopausal women (Lin et al, 1999). The most common location is uterine corpus while it may arise occasionally in uterine cervix (Brandfass and Everts 1955, Pounder 1982, Lin et al 1999). The tumors occur often on the posterior wall of uterine corpus and are located intramurally. Fatty areas appear yellow or yellow-gray and are soft in consistency. Most often adipose tissue is

scattered through out the tumor.

Microscopically, the tumors are composed of interlacing bundles of smooth muscle fibres. Sometime lipomatous component is likely to be misinterpreted as artifact or vessel spaces and vice-versa (Lin et al 1999). These tumors may be misdiagnosed by an inexperienced pathologist as well differentiated liposarcoma. But lack of lipoblast excludes this possibility. The tumors behave in a similar fashion as classical leiomyomas. Pathogenesis of this tumor is still obscure and various theories which have been proposed are lipomatous metaplasia of smooth muscle or connective tissue, origin from mesenchymal immature cells and origin from misplaced embryonic fat (Brandfass and Everts 1955, Gonzalez and Kaufmann 1961). Sometime, these tumors have also been called as hamartoma or choristoma (Pounder, 1982).

In our series of eight cases, two cases occurred in 3rd decade, one tumor was located in cervix and one was subserosal. The tumors also showed in addition other degenerative changes like hyaline degeneration, calcification and myoxid change.

References

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