

REPORT ON A CASE OF UTERINE LIPOMA

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Fat tissue practically never appears in the myometrium. At the most, fat droplets are found included in muscle fibres, as in muscular tissue anywhere. This is more marked during pregnancy, when numerous epithelioid connective-tissue cells with fatty inclusions are seen in the myometrium. In the puerperium most cells will show a fatty infiltration while they rapidly diminish in size, and some fatty degeneration may even occur.¹

The same findings apply to the myomas. Thus, Novak² considered that fatty degeneration might be the cause of fatty changes in a myoma, following hyaline degeneration or necrosis. Macroscopically, fat tissue is never produced to form demonstrable fat tissue; only differential staining will make it evident. Occasionally fat droplets will be so abundant that they may coalesce and produce macroscopic yellowish areas.

The finding of true adipose tissue in the myometrium is thus difficult to explain. The fact that such tissue is occasionally found in myomas, sometimes in such quantity as to form a lipomyoma or even a lipoma, has given rise to many theories concerning its origin. The concept of

Cohnheim (1882) of misplaced embryonic fat cells is now considered unlikely. It provided an explanation for such out-of-place lipomas as those found in the uterus, the spleen, the kidneys or the brain. Other theories for the histogenesis of such lipomas were soon propounded. Wilms (1900) held the view that they resulted from the displacement of embryonal rests along the Wolffian or Gartner's ducts. This view has been strongly criticized by Willis.³ Robert Meyer enlarged on Wilms' theory by postulating that these tumours of heterologous origin may be the result of 'illicit cell connections' between Wolffian and Müllerian systems. This view is in accordance with Gruenwald's⁴ recent work.

Peake (1943) and Riess (1950) thought that the fatty tissue was only a proliferation of subserosal fat cells from neighbouring structures and from perivascular fat cells into the uterus. Van Jacobsen (1902) explained it as being the result of infiltration of connective-tissue cells by fat globules. This can occur as a normal phenomenon (in the puerperium). The age incidence of these lipomas (all are seen in women over 30 years of age and 89% in women

over 40) has, on the other hand, given rise to the view that loss of ovarian function may play some part in the formation of the uterine lipomas.⁵

Willis³ stated that fat cells are occasionally seen among muscle fibres in muscular tissue and that they sometimes become so abundant that a lipoma is formed rather than a myoma. Bland-Sutton (1922) and Williamson and Brockman⁶ have given rather similar views, but it still remains to decide the origin of those fat cells. Novak² thought that they represented some form of mixed tumour, arising from immature cells of multiple differentiating potency, and this view is shared by many authors.

Gruenewald⁷ stated that 'epithelial and mesenchymal tissue of the uterus and tubes are much more closely related to each other in their development and presumably in their potentialities than in other organs'. He has given sound and convincing evidence of this in many articles. Wirtz and Oliviers⁷ stated that these lipomas arose from mesenchymal cells (from the broad ligament) caught between the two Müllerian ducts as they fuse at the 3rd month of life. Later on, they may proliferate to form various tumours.

Ober⁸ (in a study of the histogenesis and taxonomy of uterine sarcomas) supported the claim of Stout⁹ that these tumours should really be called 'mesenchymomata'. This is useful for classification purposes, but does not answer the essential question about the origin of this mesenchymal tissue in the uterus, embryonic rests, cell displacement, metaplasia of muscle fibres, or invasion from adjoining tissues.

Clinically, these tumours present as would any myoma. Thus, the symptomatology varies from the case with no signs or symptoms at all to the one with marked signs and symptoms (such as pain in the loins, dysmenorrhoea, haemorrhage, metrorrhagia, and so on).

Uterine lipomas are mainly seen in postmenopausal women; they can be located anywhere in the uterus, but most are in the fundus, and their size varies from a few millimetres to 2 or more centimetres in diameter. Their prognosis is that of a myoma, except in those rare cases where malignant changes have occurred.

Three main types of tumour can occur according to Ikonomou's classification, but they are perhaps simply different stages of development of the lesion and not true pathological variants.

One may thus talk of lipomyomas (where muscular and adipose tissue are present) and of pure lipomas where only fat tissue is seen. The lipofibroma and the lipofibromyoma are merely normal variations of the myoma or the fibromyoma, and the terms are self-explanatory.

A third type is the so-called 'immature lipoma'. Here are included the liposarcomas. Some of the 'mixed' tumours of the uterus contain fat (Petersen, 1922, quoted by Crossen¹⁰), and this may bring the 'immature lipomas' into the group of 'mixed tumours' rather than into the group of lipomas as such.

CASE REPORT

Mrs. Th., aged 49 years, was examined in July 1958. Her complaint was that she had had rather more profuse menstrual periods over the past few months than was her custom. Over the past 2 months she had also had some dysmenorrhoea, cramplike in nature.

The last menstrual period had been particularly heavy, and at the time of examination she was still bleeding slightly, although she had started her menstrual period at the expected date (for a normal cycle of 28 days) 12 days previously.

Her past history revealed nothing of relevance. The general examination was entirely normal, and her haemoglobin was 13 G. per 100 ml.

The gynaecological examination was also negative, the cervix being closed (with a very small erosion on the anterior lip), and the external os was that of a pluripara (3).

The uterus was freely mobile, very slightly enlarged, regular in shape, anteverted, and smooth in contour. The adnexa showed no abnormality.

To investigate further what appeared to be 'functional bleeding of premenopausal type' (and also to exclude a malignancy which the patient was convinced she had), we decided to do an endometrial biopsy.

This was done on the 24th day of her cycle under 'pentothal' anaesthesia. Scraping the posterior wall of the uterus gave the impression of meeting a ridge which half-blocked the smooth motion of the biopsy curette.

The cervix was dilated with Hegar dilators to allow a blunt curette to be used instead of the small diagnostic curette and, on scraping the posterior wall, a rubbery mass, about the size of a cherry, slightly ovoid and well-encapsulated, was removed from the uterus.

On pathological examination, the endometrium was entirely normal for the period of the cycle.

The mass proved to be a pure lipoma (Fig. 1) with typical adipose tissue throughout, except for a few fibrous bands and

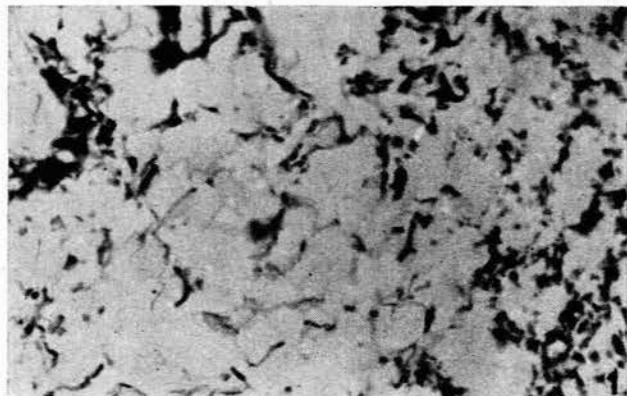


Fig. 1. Histology of uterine mass showing large amount of adipose tissue.

some muscle fibres at the base where it was fixed to the myometrium.

No signs of infection or of malignancy were seen.

After the biopsy, normal menstrual cycles occurred for another year and 3 months (the metrorrhagia and dysmenorrhoea having disappeared). Some irregularities in her menstrual cycle then occurred for 7 months, owing to the onset of the menopause.

The patient is now postmenopausal and has no further symptoms or signs.

This case was reported in view of the relative rarity of these tumours, although authors differ on the number that have been reported.

Novak² stated, in 1952, that only 40 cases had been described. Decker,¹⁰ also in 1952, gave the figure of 23 recorded cases; Robertson and Gerber¹¹ reported in 1953 what they considered to be the 24th case. Chachutow and Brill¹² claimed, in 1947, to have described the 35th case since 1816 (when Lobtein described the first one). Walsen¹³ put the number of cases reported at 50 in 1957, but Pena

and Guixa,¹⁴ in reporting 2 cases of their own, put the figure at 68 reported cases in 1957.

Brandfan and Everts-Suarez¹⁵ and Walsen¹³ have given very good reviews of the whole problem of uterine lipomas.

SUMMARY

A case of lipoma of the uterus is reported. A brief account of the aetiology, pathology, symptomatology, prognosis and frequency of this lesion is given.

REFERENCES

1. Maximow, A. and Bloom, W. (1947): *A Textbook of Histology*, 4th ed., p. 564. Philadelphia: W. B. Saunders.
2. Novak, E. R. (1952): *Gynecology and Obstetric Pathology*, 3rd ed. Philadelphia: W. B. Saunders.
3. Willis, R. A. (1948): *Pathology of Tumours*, pp. 729 and 754. London: Butterworth.
4. Gruenwald, P. (1959): *Ann. N. Y. Acad. Sci.*, **75**, 436.
5. Brunsch, K. K. (1951): *Zbl. Gynäk.*, **73**, 96.
6. Williamson, H. and Brockman, R. St. L. (1928): *J. Obstet. Gynec.*, **21**, 290.
7. Wirtz, L. and Oliviers, G. (1950): *Bull. Ass. Gynec. Obstet. franç.*, **2**, 355.
8. Ober, W. B. (1959): *Ann. N. Y. Acad. Sci.*, **75**, 577.
9. Stout, A. P. (1948): *Ann. Surg.*, **127**, 278.
10. Decker, W. H. (1952): *Amer. J. Obstet. Gynec.*, **63**, 911.
11. Robertson, J. W. and Gerber, H. (1953): *Ibid.*, **65**, 920.
12. Chachutow, R. J., Brill, R. and Passaie, N. J. (1957): *Ibid.*, **73**, 1358.
13. Walsen, O. (1957): *Zbl. Gynäk.*, **79**, 1821.
14. Pena, H. J. and Guixa, H. L. (1957): *Obstet. Ginec. lat.-amer.*, **15**, 192.
15. Brandfan, R. T. and Everts-Suarez, E. A. (1955): *Amer. J. Obstet. Gynec.*, **70**, 359.
16. Crossen, R. J. (1953): *Diseases of Women*, 10th ed., p. 499. St. Louis: C. V. Mosby.