

# Multicentric Neoplasia

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## Abstract

A 38 year young unmarried female who had an excision of a fibroadenoma from her left breast at 11 years of age, before attaining menarche, which was at 16 years, suffered from severe menorrhoea and dysmenorrhoea due to multiple fibroid uterus and adenomyosis. She underwent myomectomy and adenomyomectomy – a conservative surgery to preserve her fertility. She developed features of intraperitoneal bleed and haemodynamic instability on 3<sup>d</sup> post operative day when exploratory laparotomy and total abdominal hysterectomy was done. An incidental finding of a tumour at the distal end of vermiform appendix was observed – which was suspected to be a carcinoid tumour of appendix macroscopically, an appendicectomy was performed. She also had another fibroadenoma in left breast which was excised. Her mother a diabetic had fibroadenoma breast operated earlier. We present an interesting case of multicentric soft tissue neoplasia involving breast, uterus and vermiform appendix.

## Introduction

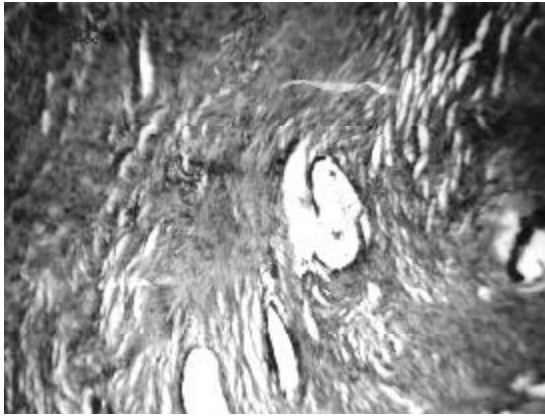
Leiomyoma of uterus is a common benign mesenchymal sex hormone responsive tumour of uterus in the reproductive period. Infrequently other pelvic organs such as round ligament, ovarian ligament, broad ligament, ovary, vagina and periurethral tissues are also affected causing a myriad clinical feature ranging from asymptomatic mass, infertility, pressure symptoms, menstrual disturbances, micturitional disturbances, dysmenorrhoea and pelvic pain.<sup>1,2</sup> Prevalence of simple fibroadenoma breast in general population is reported to be 2.2% and is said to decrease with age.<sup>3</sup> Simple fibroadenoma have a reported incidence of 7-13% in women from adolescence through mid 20's who present to speciality clinics.<sup>4</sup> 22% of

proven fibroadenoma are complex which has a higher risk for malignancy.<sup>5</sup> Tumours of appendix are infrequent and when they are found, they are almost always during an appendectomy. In the classic study of 71,000 specimen taken at appendectomy in forty years, Collins found 958 malignant and 3271 benign tumours with an overall incidence of 4.6% for benign tumours and 1.35% for malignant tumour.<sup>6</sup> Another large series reported a total of 8,699 appendectomies yielding 101 total tumour and 60 malignant neoplasm for an incidence of 1.2% over all and 0.7% for malignant tumour.<sup>7</sup> Benign tumours of appendix consist of leiomyoma, neuromas, lipoma and inflammatory myofibroelastic tumour.<sup>7</sup> Malignant tumours of appendix consist of leiomyoma, neuromas, lipoma and inflammatory myofibroelastic tumour.<sup>7</sup> Malignant tumours of appendix includes carcinoids, mucocoeles, adenocarcinomas and secondaries.

## Case Report

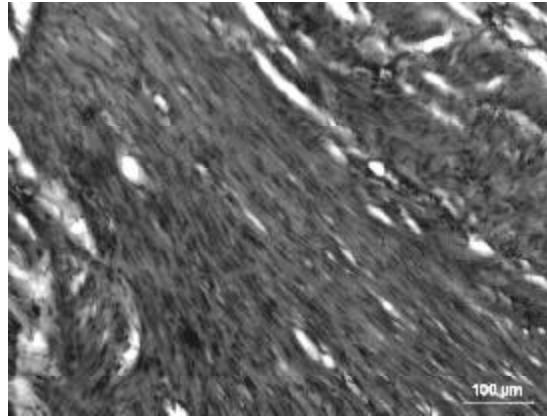
A 38 year old unmarried female professional had

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*Fig. 1 : Microscopic appearance of leomyoma and adenomyosis of uterus.*

suffered from severe menorrhagia and dysmenorrhoea for previous 4 years. She had menarche at 16 years of age. Her period was regular lasting 3-4 days per month. The patient experienced severe menorrhoea and dysmenorrhoea causing disturbance in daily work. Her micturition and bowel habit were normal. She had a fibroadenoma of left breast at 11 years of age, 5 years before her menarche which was excised elsewhere. There is no history of endocrinopathy, diabetes mellitus, hypertension, bleeding disorder or drug allergy. Her personal history was nonsignificant. Her mother a case of diabetes mellitus had excision of fibroadenoma of breast earlier. Her general and systemic examination was normal. There was no feature of endocrinopathy. There was a fibroadenoma in left breast. On pelvic examination the uterus was found enlarged up to 12 weeks. The Ultrasound study revealed uterus enlarged with multiple fibroids. She had taken various conservative methods of treatment including alternative therapies without any long lasting relief. She was planned for myomectomy to conserve fertility. After completion of pre operative work up, she was taken up for myomectomy under general anaesthesia and abdomen was opened by Pfannensteil incision, the uterus was enlarged, deformed due to multiple fibroid, the posterior surface of uterus was adherent to bowel (? Endometriosis). A large fibroid 4 x 4 x 3 cms in the fundal region deeply embedded into myometrial layer was excised with meticulous dissection. A few smaller fibroid was also excised. The tubes and ovaries were normal. During 3<sup>rd</sup> post operative day she developed feature of intraperitoneal haemorrhage falling blood pressure, rising pulse and pallor. Haemoglobin fell to



*Fig. 2 : Microscopic appearance of leomyoma of appendix.*

8 gm%. She developed haemodynamic instability, preoperative blood transfusion and stabilization was done.

She was taken up for exploratory laparotomy via the previous incision. There was intraperitoneal bleed and intra uterine bleeding from the uterine wound. Total abdominal hysterectomy was performed to save the patient, as the haemorrhage was not controllable. There was an incidental finding of a tumour of 1.2 x 1 cm size at distal end of appendix suggestive of a carcinoid tumour. Appendicectomy was performed. Her post operative recovery was smooth and uneventful. The histopathology was reported as showing microscopic appearance of Leomyoma and Adenomyosis of uterus (Fig. 1), Microscopic appearance of Leomyoma of Appendix (Fig. 2).

## **Discussion**

Neoplasia as a disease process is still enigmatic, there are several initiating and promoting factors for development of neoplasia such as genetics, mutation, environmental factors, hormones, immunodeficiency, exposure to chemicals and radiation. It has been noted that the initiating and promoting factors of neoplasia may affect tissues at multiple sites leading to multicentric neoplasia. One study has summarized that in women with uterine fibroids, the frequency of fibroadenoma of breast was 65% and of a thyroid nodule was

38.7% while women with a normal uterus the frequency was 35% and 20% respectively. Therefore, women with uterine fibroids have an increased risk of thyroid nodule and fibroadenoma of breast.<sup>8</sup> A case of large multicentric adenomatoid tumour in the uterus, ovary and appendix was described.<sup>9</sup> The risk of neoplasia in other soft tissue increased once there is a soft tissue tumour. In our case leomyoma of appendix, leomyoma of uterus and fibroadenomas of breast were noted.

### Conclusion

A woman in her reproductive period had multicentric leomyoma in uterus and appendix, as well as fibroadenomas in the breast. The problem of a tendency for multicentric soft tissue neoplasia and the need for regular follow up of such cases is highlighted.

### References

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#### IMPROVING FUNCTION: A NEW TREATMENT ERA FOR MULTIPLE SCLEROSIS?

Robust studies of symptomatic treatments are rare in multiple sclerosis, and so it is encouraging to read the randomized evaluation, by Andrew Goodman and colleagues, of oral fampridine in ambulation and leg strength in *The Lancet* today.

However, although the data presented in today's study show a clinically relevant improvement in function induced by fampridine, it is not easy to extrapolate these findings to daily practice, where a definition of responder on the basis of repeated standardized assessments of a timed walk is unlikely to be feasible.

The results with fampridine in multiple sclerosis are intriguing, both because they show improvement in ambulation and because the patient's perspective on walking is used to validate the primary outcome.

**Alan Thompson, Chris Polman, *The Lancet*, 2009; 373 : 697-98.**