

Distribution of Leiomyosarcomas in the Female Genital Tract: A 10 year Retrospective Study

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Introduction: Of all sarcomas in the female genital tract, leiomyosarcoma of the uterine corpus has the highest incidence (54% of all sarcomas). The myometrium is the commonest location because of the abundance of smooth muscle. Leiomyosarcomas at other locations in the female genital tract are much less frequent and are thought to arise from vascular smooth muscle bundles. With this study we aim to investigate the distribution of leiomyosarcomas in the female genital tract.

Methods: We performed a retrospective search over the last 10 years in the archive of our tertiary hospital. All patients with a biopsy or resection from a primary tumour were recorded and when there was a biopsy or resection of a metastasis, the location of the primary tumour was noted.

Results: In total 76 patients were diagnosed with a leiomyosarcoma in the female genital tract over the last 10 years. Of these, 64 were primary uterine leiomyosarcoma. The other locations of primary leiomyosarcoma were vagina (5), cervix (4), vulva (2) and fallopian tube (1).

Discussion: Although leiomyosarcoma are most frequent in the corpus uteri, more than 15% of our cases had another primary origin in the female genital tract. These included all other organs, except the ovaries. Ovarian leiomyosarcomas are described in the literature but are very rare. This distribution appears to have remained stable over time as our data is concordant with older literature that showed that 86% of the gynaecologic leiomyosarcomas are uterine. With this report we want to emphasise that leiomyosarcomas have a more heterogeneous site distribution than mostly thought and that a smooth muscle neoplasm must be considered in every spindle cell lesion of the female genital tract.