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Case Report

Clinical and Histopathological behavior of Cervix and Cutaneous Extrauterine Leiomyoma; Report of two rare cases with Review Literature

Nilam Bhasker[1]

[1]Consultant Pathologist, Lucknow, India

ABSTRACT:
Literature has well evidenced that leiomyomas are most often benign smooth muscle tumours of the female genital tract. Clinically, leiomyomas can be commonly intrauterine or rarely extrauterine. Because of its rarity, it frequently leads to mistaken diagnosis and management. Extrauterine leiomyomas can apply pressure on urethra, bladder neck or ureter due to extrauterine location and manifest clinically as urinary flow obstruction of different patterns. Abnormal growth pattern and varying locations frequently make recognition of leiomyomas challenging, both clinically and histopathologically. In our case, two patient presented with abdominal mass which was further diagnosed as extrauterine leiomyoma. Author has also confirmed clinical and histopathological behavior of extrauterine leiomyoma in two cases including cervix leiomyoma and cutaneous leiomyoma.

Key words: Leiomyomas, Extrauterine, Cervix, Uterus

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Corresponding Author: Dr. Nilam Bhasker, Consultant Pathologist, Lucknow, India

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INTRODUCTION

As we all are aware that extrauterine leiomyomas are usually rare. Leiomyomas characterized as the most common gynecologic and uterine neoplasms. Roughly 21%–32% of ladies older than 34 years have uterine leiomyomas and they are usually noticed clinically.[1] The radiologic analysis of classic uterine leiomyomas is basic step for diagnosis. These diseases are having distinctive imaging features with common clinical expressions. Nevertheless, leiomyomas infrequently occur as unusual growth patterns or in atypical sites that make their recognition more difficult both clinically and radiologically.[2] Even if the uterus is the most common site of origin of leiomyomas, the lesions arise as proliferations of smooth muscle cells, and they can develop at any site where such cells are found. Abnormal sites of origin consist of the vulva, ovaries, urinary bladder, cervix and urethra.[3] Many of the pioneer workers have demonstrated few other extra uterine sites for leiomyomas like sinonasal cavities, orbits, kidneys, and skin.[4] In this paper, an imperative review of literature has been presented with critical analysis and correlation with previous works. Author has also demonstrated clinical and histopathological behavior of extrauterine leiomyoma in two cases including cervix leiomyoma and cutaneous leiomyoma. One specimen showed cervical leiomyoma while other showed cutaneous leiomyoma from ankle region.

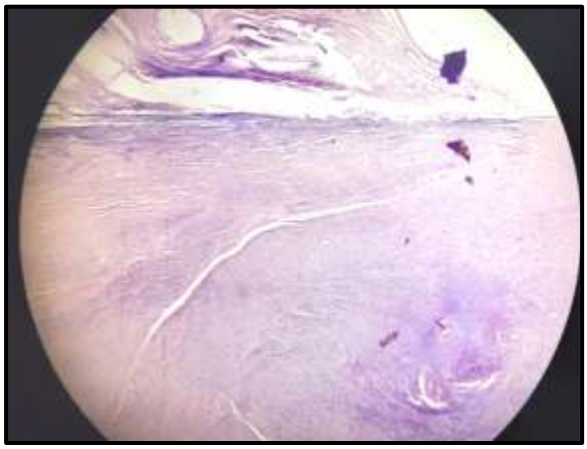
CASE 1 (CERVIX LEIOMYOMA)

A 35 years old female patient had reported to private hospital in Lakheempur district with chief complains of irregular menstrual cycle with abdominal pain. Patient also complained of something coming out of vagina. She had completed family so hysterectomy procedure was done and specimen was sent to diagnostic center for histopathology. On gross specimen, there is a partial hysterectomy specimen fixed in formalin. Measurement of uterus, cervix was

10x 8x 6 cm. Outer surface was smooth (figure 1). Cut surface shows slit like endometrial canal and a greyish brown 3x2cm fibroid in cervix region. Inner surface of cervical fibroid showed whorled areas. Representative sections were taken. On microscopic findings, all the sections were seen and examined (figure 2). Sections from cervical fibroid were lined by stratified squamous epithelium. Underlying subepithelial zone showed interlacing fibers of smooth muscle bundles with intervening thick and thin walled blood vessels and edematous stroma along with endocervical glands

Figure 1: Gross specimen showing a cervix leiomyoma with grayish white whorled areas

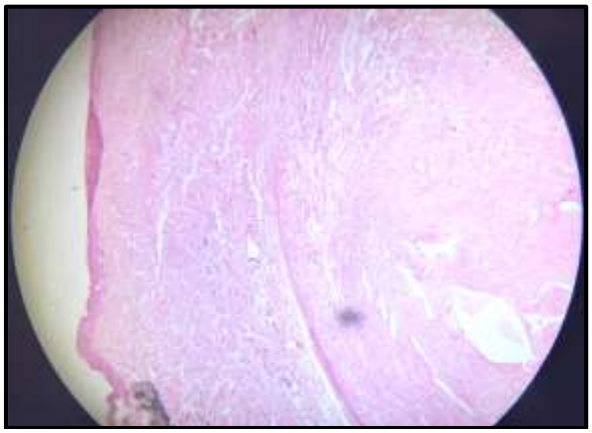
Figure 2: Photomicrographs showing a cervix leiomyoma with interlacing fibers of smooth muscle bundles encircled by lined by endocervical glands with edematous stroma



CASE 2 (CUTANEOUS LEIOMYOMA)

A 40 years female reported to private hospital in Lucknow city with complains of swelling in right ankle with intermittent pain and difficulty in walking. Clinician operated her ankle swelling and specimen sent to diagnostic centre for histopathology. On gross specimen, author received a globular mass with attached skin, fixed in formalin. On measuring specimen, it was 3x3x2cm. Outer surface was smooth and cuts were firm. Cut surface showed greyish white whorled areas. Representative sections were taken. On microscopic findings- all the sections were studied. Sections from cutaneous fibroid are lined by keratinized stratified squamous epithelium (figure 3). Underlying subepithelial zone showed interlacing fibers of smooth muscle bundles with intervening thick and thin walled blood vessels.

Figure 3: Photomicrographs showing a cutaneous leiomyoma having interlacing fibers of smooth muscle bundles with intervening thick and thin walled blood vessels are lined by keratinized squamous epithelium.



REVIEW OF LITRATURE

In a study conducted by Connly et al, researchers stated that histopathological correlations have confirmed that most of the cervical leiomyoma arises from the cervical muscular tissue. Extra-uterine cervical leiomyoma usually looks like uterine leiomyoma, which is more common. Cervical leiomyoma is typically small in size, measuring upto 0.5–1 cm in size.[5] Extra-uterine leiomyoma occurs frequently in women aged 34 but can affect women of all ages. The accurate diagnosis of benign cervical tumor generally confirmed on the basis of histological examination. Moreover, Bagwan and associates stated that the diagnosis of benign cervical fibroids also depends on histopathological reports.[6] Many of the related studies have shown that cervical leiomyoma are most common cervical benign tumour. A cervical myoma is typically solitary in contrast to uterine myomas. Two to seven percent of myomas are classified as cervical myomas. Zamecnick and co workers demonstrated that the majority of myomas that seems to be cervical truly arise from the isthmus of the uterus. There are numerous types of cervical fibroid and each can behave in a different way.[7] Supravaginal fibroids may be found centrally in the pelvis displacing the uterus superiorly. The growing myoma creates symptoms secondary to mechanical pressure on adjacent organs as dysuria, urgency,

urethral or ureteral obstruction, dyspareunia, or obstruction of the cervix. Rarely, a cervical myoma may become pedunculated and obtrude through the cervix. These prolapsed myomas can be ulcerated and replicate a malignant tumour. Cutaneous leiomyomas comprise approximately 5% of all leiomyomas. Literature has well shown different types of cutaneous leiomyomas such as piloleiomyomas, angioleiomyomas, and genital leiomyomas. Spencer and associated have stated that leiomyomas are derived from the dartos muscle of the scrotum and the labia majora. They also showed that leiomyomas are derived from the erectile muscle of the nipple.[8] Lupton and colleagues have confirmed that cutaneous leiomyomas are more common in adults than in children. However, they also noticed cases of isolated of cutaneous leiomyomas.[9] They also studied that leiomyomas in children exist, including a solitary cutaneous leiomyoma on the heel of a neonate at birth. Cutaneous leiomyomas are rare lesions and there is limited literature on its clinicopathologic features. These form an important clinical differential diagnosis of painful papulonodules and must be biopsied in order to differentiate them from spindle cell lesions like dermatofibroma and neurofibroma and myofibroblastic lesions like nodular fasciitis, fibromyoma, and smooth muscle hamartoma.[10] Uterine leiomyoma is a benign smooth muscle neoplasm, typically arising in uterus and deep soft tissue. In the present case, tumour size of 7×4×3 cm identified on subserosal aspect of uterus. Rathod et al demonstrated gross view of leiomyoma as well circumscribed, whitish nodule and on cut surface whitish whirls. They further stated that microscopically, tumour showed interlacing fascicles of bland looking spindle shaped cell, eosinophilic cytoplasm, "cigar-shaped" nuclei and presence of numerous round to stellate-shaped, eosinophilic, acellular collagenous mats resembling "amianthoid-like fibers".[11] Fukunaga et al state that these types of growths illustrates that rare benign smooth muscle tumours can proliferate in dissecting and extrauterine growth patterns, findings that should not be confused with malignant mesenchymal tumours.[12,13]

CONCLUSION

Extrauterine leiomyomas like cervical and cutaneous leiomyoma are rare clinical finding. Therefore it is deemed necessary for clinicians to see leiomyoma for secondary changes. Other variants of extrauterine leiomyomas also occur reported in the literature. Usually, the diagnosis of leiomyoma is tricky owing to its rarity, unusual presentation, clinical and radiological features. Although they are histologically benign, extrauterine leiomyomas may mimic malignant tumors at imaging and may present diagnostic challenges to operator. The clinical symptoms and imaging features depend on the location of the lesion and on its growth pattern. Additionally, histopathological investigations seem very promising and exacting in accurate diagnosis of such clinical conditions.

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