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Multiorgan Metastasis from Retroperitoneal Giant Leiomyosacoma: A Rare Entity a Case Report

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Abstract: ***Leiomyosarcoma is a rare malignant tumour that arises from smooth muscle cells. Cutaneous metastatic deposits from leiomyosarcoma also have concomitant metastatic deposits in other internal organs. A 62-year-old man who admitted with huge abdominal lump with multiple cutaneous nodule.Multiple lesions of cutaneous leiomyosacoma raise the possibility of retroperitoneal metastatic disease.Routein histological examination with hematoxylin and eosin and immunohistochemical analysis play a key role in differentiating leiomyosarcoma from other spindle cell tumors.***

Keywords: Immunohistochemistry, leiomyosarcoma, metastatic deposits, subcutaneous nodule

1. Introduction

Soft tissue sarcoma constitute a heterogenous group of neoplasms of various histologies and comprises less than one percent of all adult malignancies.[1] About one-half to three quarter of all soft tissue Leiomyosarcoma arise in retroperitoneal, one- thirds of affected patient are men. The peak incidence occurs in the seventh decade. [3] It account for 10% of all soft-tissue sarcoma[2]. Retroperitoneal Leiomyosarcoma are aggressive lesions that cause death not only by distant metastasis but also local extension.[4] Retroperitoneal leiomyosarcoma develops in soft tissue of retroperitoneal cavity and it often grows without pain; such characteristic leads to incidental discovery and mostly as an enormous mass.

2. Case Report

A 62-year-old man was refered to SOPD with complaints of abdominal distention, weight loss, with multiple nodular swelling over chest wall, right buttock, and left inguinal region. On examination, abdominal lump was huge, hard , non –tender, move with respiration, with multiple nodular swelling over skin of chest wall, right buttock, left inguinal region were 4x4 cm, 9.9x7.0 cm and 5.8x4.2 cm in diameter of size respectively, which was hard, non-tender, over lying skin was almost appears normal.

Ultrasonography report of whole abdomen showed a large heterogenous mass measued approx. 10.2x 10.2 cms seen anteriorly to spine in retroperitoneum displacing the kidney anteriorly ? malignant retroperitoneal mass with hepatomegaly with multiple metastasis was seen in right lobe of liver. Rest of the other organs appear normal S/O malignant retroperitoneal mass.

Multislice CT abdomen and pelvic showed multiple heterodensely enhancing variable sizes retroperitoneal masses were noted largest measured 17.2 x 14.4 cm on left side displacing left kidney antero-superiorly and spleen medialy-upward, 11.6 x10.3 cm in middle displacing great vessels to right side and pancreas upwards and right side S/O Neuroblastomas.

The liver was showed multiple, rounded heterodense masses largest was measured about 12.2 x7.2 cm sizes S/O metastasis.

Multiple rounded soft tissue density nodules of variable size were noted in bilateral lung fields S/O metastasis.

Mutliple subcutaneous nodules were noted largest ones were 9.9 x 7.0 cm at right buttock , 5.8 x 2.2 cm at left inguinal region and 4 x4 cm at chest wall S/O metastasis.

Calcification nodule was noted at right side lower paratracheal region measured about 2.3 x 2.2 cm S/O lymphadenopathy. Rest of the other organs were unremarkable.

We received excision biopsy of the cutaneous nodular lesion over the chest wall labeled as ? metastatic neuroblastoma. It was single globular, firm, homogenous gray- white in color tissue piece of size 2x2x1.5 cm . well preserved in 10% natural formal buffer in a vial.

Histopathological examination done and it was reported as metastasis of smooth muscle cell tumour of uncertain malignant potential. Further immunohistochemical staining was immunopositive for smooth muscle actin, muscle specific actin, h- Caldesmon, and desmin and Immunonegative for CD117, DOG 1,CD34. Finally nodular mass over chest wall reported as metastatic leiomyosarcoma.Microphotograph----------

3. Discussion

Sarcoma refers to a cancer that arises from transformed cells of mesenchymal origin. Leiomyosarcoma is one of the more common types of soft tissue sarcoma to develop in adults. It should not be confused with leiomyoma, which is a benign tumor originating from the same tissue. Leimyosarcoma can arise in any type of organ. Cutaneous Leiomyosarcoma originates from the pilo-erector muscles in the skin, gastrointestinal Leiomyosarcoma arises from smooth muscle in the GI tract or from a blood vessels and uterine

Leiomyosarcoma comes from the smooth muscle in the uterine muscular layer.

A case of retroperitoneal leiomyosarcoma with synchronous liver, lungs, lymph node, cutaneous chest wall, buttock, inguinal region metastasis was presented. Lung , liver, and prostate cancers are the commonest epithelial malignancies metastasizing to skin in men. A leiomyosarcoma can have a primary site of origin where there is a blood vessels and has a strong metastatic potential to distant sites, because of its aggressiveness and propensity for hematogenous spread. Cutaneous metastasis occurs in only 0.7 – 9% of all malignancies. Metastatic skin deposits from sarcoma are even rarer, accounting for 1 – 2.6% of metastatic skin tumour. Of all sarcoma , leiomyosarcoma are more likely to originate cutaneous metastatic deposits.[5] Lewis et al reported 70% of 500 patients diagnosed retroperitoneal leiomyosarcoma with tumor larger than 10 cm in diameter with metastasis of tumor to mesentry, lung, liver, lymph node cutaneous or subcutaneous.[6]Similarly , the commonly reported sites of metastasis from retroperitoneal leiomyosarcoma are bilateral lungs, liver,brain, skeletal muscle, spine,cutaneous or subcutaneous reported[7,8,9,10,11,12,13,14,15.]

4. Conclusion

Multiple lesions of cutaneous leiomyosarcoma should raise the possibility of abdominal or retroperitoneal metastatic disease. Clinicians should be aware of this unusual presentation. This case also draws attention to the importance of regular follow-up, including the performance of a meticulous physical examination in patients with leiomyosarcoma, to rule out subcutaneous metastasis.

5. Conflicts of Interest

The authors declare that there is no conflict of interests regarding the publication of this paper.

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