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A CASE STUDY OF A EPITHELIOID LEIOMYOMA

Medical Science

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ABSTRACT

Leiomyoma of uterus are extremely common neoplasm. The epithelioid leiomyoma is a rare mesenchymal neoplasm which is in differential with the mesenchymal melanocytic tumor- PEComa, stromal tumor like stromal nodule and epithelioid sarcoma,from which it can be recognized by its specific histological features and IHC. We present a case of 38years old female presented with menorrhagia for which she went for hysterectomy with bilateral salphingoopherectomy. Grossly the specimen shows a soft yellowish well circumscribed mass of 3cm. diameter in the myometrium and was confirmed microscopically as epithelioid leiomyoma, recognized by its classical presentation of mixture of all 3 types of patterns in this tumor and it need not to be differentiate from others, by IHC.

KEYWORDS

epithelioid leiomyoma, smooth muscle tumor

Introduction

The overall incidence of leiomyoma is between 4-11%, which rise to 40% in women of >50 years of age {1} . Epitheioid leiomyoma is a rare mesenchymal neoplasm. Formerly it was called as Leiomyoblastoma, Clear cell leiomyoma and Plexiform leiomyoma. All these synonyms are due to their specific histologic pattern . Their resemblance to smooth muscle cells of foetal uterus at 16-26 weeks leads to the term Leiomyoblastoma {1,2,3}. It is seen between 30-70 years of age with a peak in the 5th decade and presenting with either no symptoms or size is larger then symptoms are due to pressure effect. These can be intramural or subserosal in location in which case it hangs in the endometrial cavity. Grossly the median diameter is 6-7 cm. and cut surface is yellowish grey may contain areas of haemorrhage. The IHC shows reactivity to smooth muscle markers, actin, desmin and myosin. The restricted IHC with smooth muscle marker like caldesmon and ultrastructural features like abundance of intermediate filament along with intermingled dence bodies like structure of tumor cells suggest resemblance to immature smooth muscle cells. {4}

Case report

A case of epithelioid leiomyoma was observed out of many leiomyomas, which were seen after hysterectomy. The case was 38years old female with a history of menorrhagia .Clinically uterus was 10 week size and USG reveals a fibroid. She was admitted in jaykay loan hospital kota in January, 17 and was operated for hysterectomy with bilateral salpingoopherectomy. Grossly uterus was 9x6x5cm. On serial sectioning it shows a intramural mass of 3cm. diameter c/s is grey yellow soft and smooth but not trabeculated (Fig – 1). Microscopically the cells are round to polygonal rather than spindle. The nuclei are large and centrally positioned mixture of three basic types of pattern are seen. These are leiomyoblastoma, which has rounded cells with eosinophillic cytoplasm, a clear cell type has polygonal cells with abundant clear cytoplasm which contains glycogen and nuclei displaced to one side gives signet ring appearance and the plexiform type which has cord and nest of small cells with moderate amount of cytoplasm and has sex cord stromal tumor like appearance. The tumor doesn't show any atypia,mitosis and necrosis. The whole of the tumor is surrounded by smooth muscle of myometrium (Fig – 2,3)

Discussion

These tumor are also called as leiomyoblastoma because of its immunohistochemical and ultrastructural resemblance to smooth muscle mesenchymal cells of foetal uterus during 14-26 weeks.These should be differentiated from the close entities like PEComa, endometrial stromal tumor like stromal nodule and epithelioid leiomyosarcoma. The tumor cells in PEComa ranging from epithelioid to spindeled, they have moderate amount of clear to eosinophilic cytoplasm and well defined cell borders along with positive melanocytic markers like Melan-A and HMB-45. The stromal nodule consist of cells that resemble normal endometrial stromal cells which have uniform small darkly staining round to oval nuclei with finely granular chromatin and conspicuous nuclei. The cytoplasm is scanty to moderate The tumor shows evenly distributed small arterioles with hyline plaques, fibrosis and shows positive IHC with CD-10.

However in our case diagnosis is straight forward because of mixture of all 3 patterns which is typical of epitheioid leiomyoma and not required IHC. The case is reported because of its rareity and its prognostic crieteria which divide it into benign, borderline and malignant which is different from normal leiomyoma. In case of epithelioid sarcoma the tumor should be >6cm. in size with moderate to severe atypia ,tumor cell necrosis and >5/10 HPF mitosis which is absent in our case and shows benign features. In between the benign and malignant tumor which has >6cm. in size, modrate to severe atypia ,mitosis <5/10 HPF or (2-4/10HPF) but absent necrosis shows uncertain behavior known as stromal tumor of uncertain malignant potential – STUMP. Close followup is required in these cases. Most malignant lesions are leiomyoblastoma type {5}.

Conclusion

The present case is typical example of epithelioid leiomyoma but close followup is required in case of stump which has uncertain behavior.

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