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A RARE CASE OF CLITORAL NEUROFIBROMA

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Abstract

Cltoral neurofibromas are benign tumors originating from peripheral nerves of the clitoris. While neurofibromas can occur in various anatomical locations, their occurrence in the clitoral region is extremely uncommon. Few cases of clitoral neurofibromas have been reported in the literature, and even fewer have focused on the radiologic imaging findings. Therefore, there is a limited understanding of the specific radiologic characteristics of clitoral neurofibromas. We present a 38-year-old woman with painless clitoral mass for the previous 2 years. The patient noted the mass to be enlarged in the past 5 months. Physical examination revealed a palpable and well-circumscribed mass arising from the clitoral shaft. Cytological examination was performed with the impression of fibroma. Contrast enhanced CT scan revealed an ovoid, well-circumscribed enhancing mass on clitoris shaft suggestive of a benign lesion, consistent with description provided. Surgical excision biopsy was performed followed with histopathological examination with the impression of neurofibroma.This case report considered highly specific examination for the clitoral neurofibroma.

Keywords: clitoral, neurofibroma, fibroma, CT scan, imaging

INTRODUCTION

Neurofibromas are slow-growing benign tumors that arise from Schwann cells and fibroblasts, primarily affecting peripheral nerves. Although commonly associated with Neurofibromatosis Type 1 (NF1), isolated neurofibromas can occur sporadically. Clitoral neurofibromas are exceedingly rare, with only a handful of cases documented in the medical literature. Given the unique sensitivity and complexity of the clitoral region, radiological evaluation plays a critical role in accurate diagnosis and optimal treatment planning.

CASE PRESENTATION

We present a 38-year-old woman with painless clitoral mass for the previous 2 years. The patient noted the mass to be enlarged in the past 5 months. She had been married for 17 years with 3 children. There was no family history of neurofibromas. Physical examination revealed a palpable and well-circumscribed mass arising from the clitoral shaft measured approximately +/- 6 x 4,5 x 3cm. Vaginal examination showed no abnormalities. Routine hematologic and serum values were within normal limits.

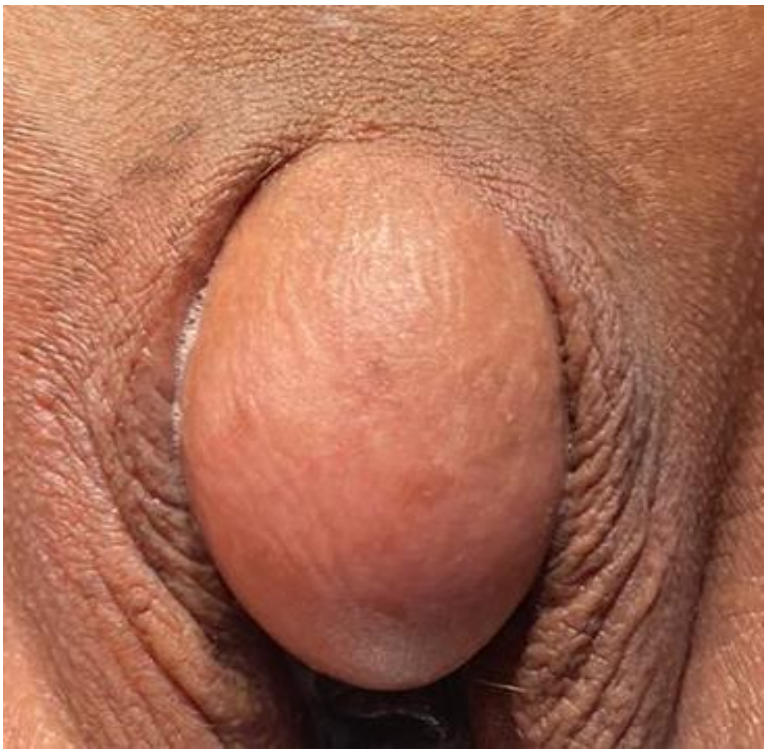


Figure 1. Preoperative photograph of patient with clitoral mass.

Routine chest x ray was performed and the result shows no radiological abnormalities in the heart and lungs at present.

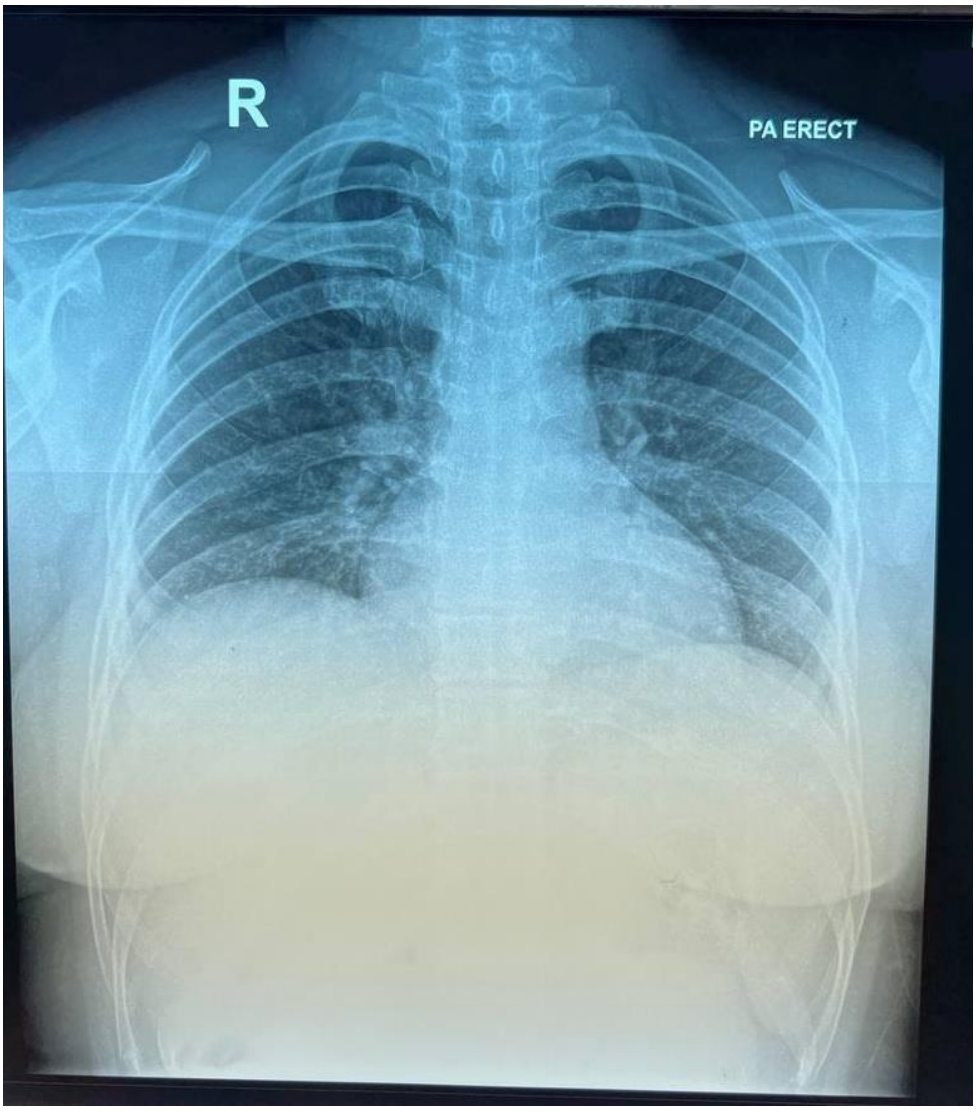
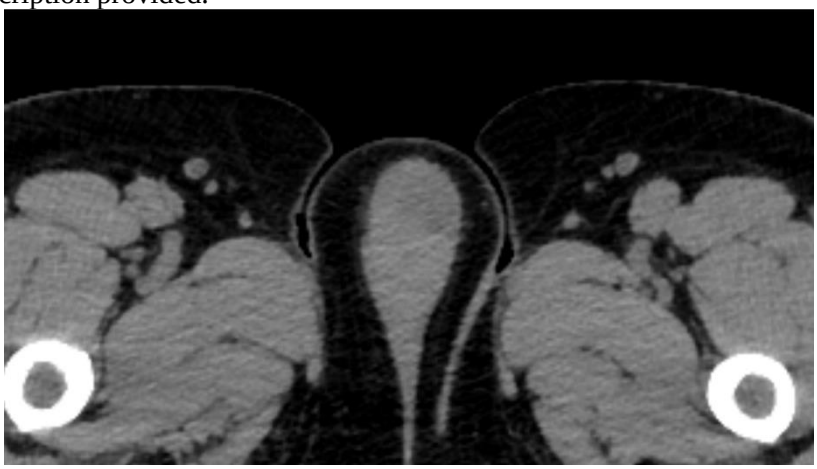


Figure 2. Routine chest x-ray of patient with clitoral mass.

Contrast enhanced CT scan revealed an ovoid, well-circumscribed heterogenous enhancing mass on clitoris shaft measured approximately +/- 4,8 x 3 x 7,2cm suggestive of a benign lesion consistent with description provided.



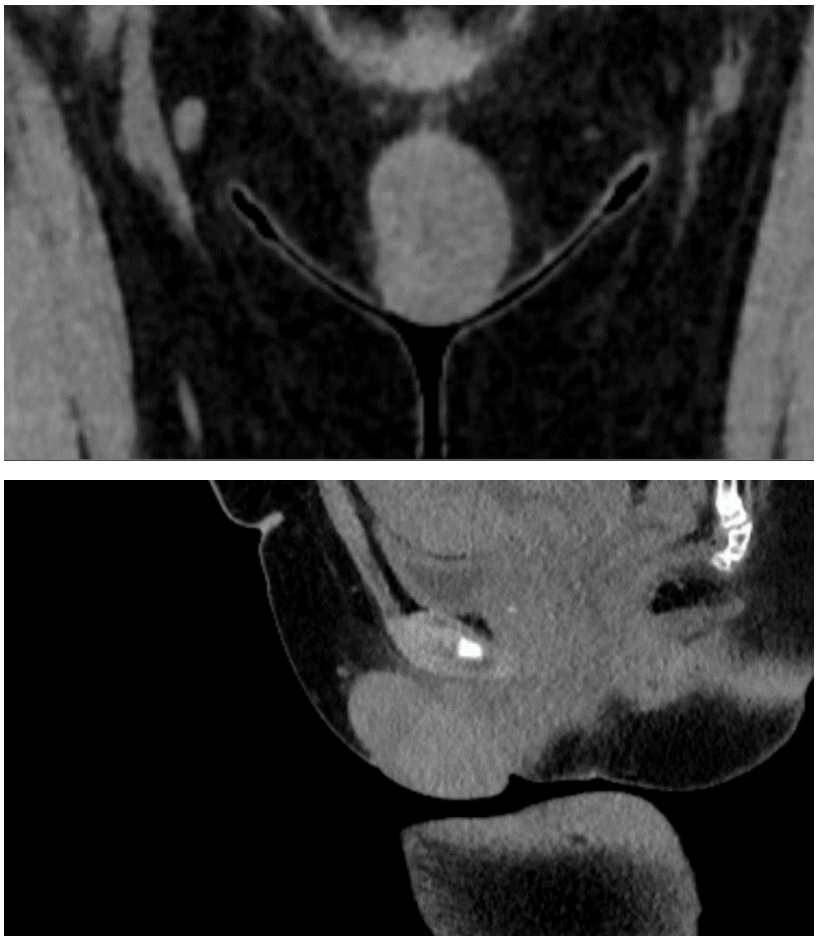
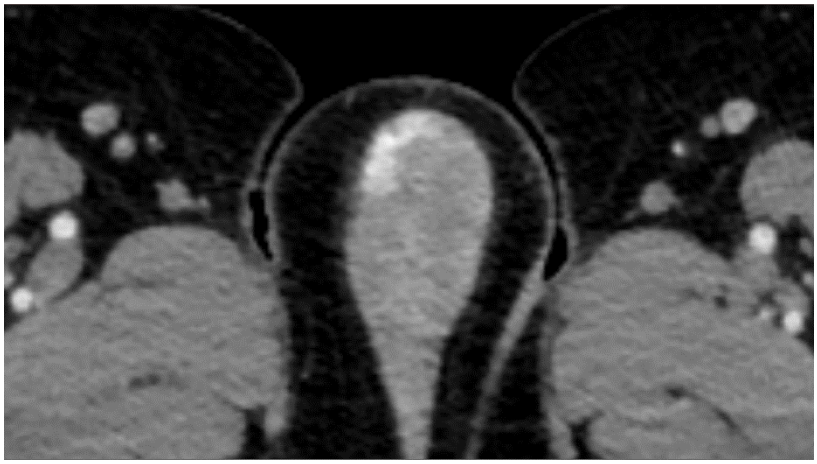


Figure 3. Non enhanced axial, coronal, and sagittal CT scan images of clitoral mass.



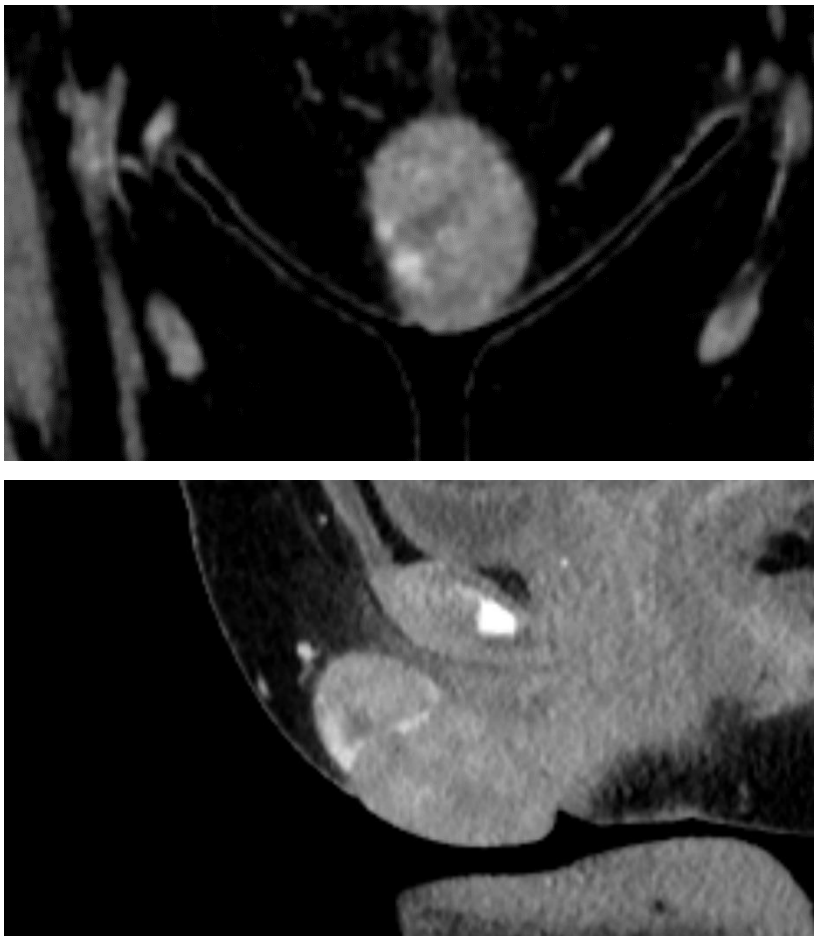


Figure 4. Contrast enhanced axial, coronal and sagittal CT scan images of clitoral mass.

Prior to surgical treatment, a cytological examination was performed. The smear preparation consists of scattered and grouped spindle-shaped cells with spindle-shaped nuclei, both ends pointed, fine chromatin, and eosinophilic cytoplasm with the impression of fibroma.

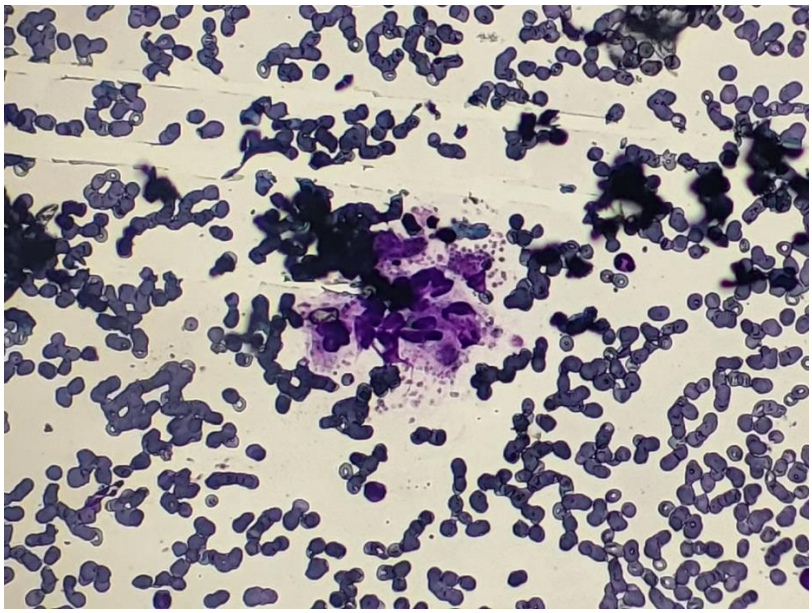


Figure 5. Cytological examination of clitoral mass.

Surgical excision biopsy was performed followed with histopathological examination. After surgery, a tissue measuring 5 x 4 x 3cm was obtained, adhering to another tissue measuring 3.5 x 3 x 2cm, grayish white in color.

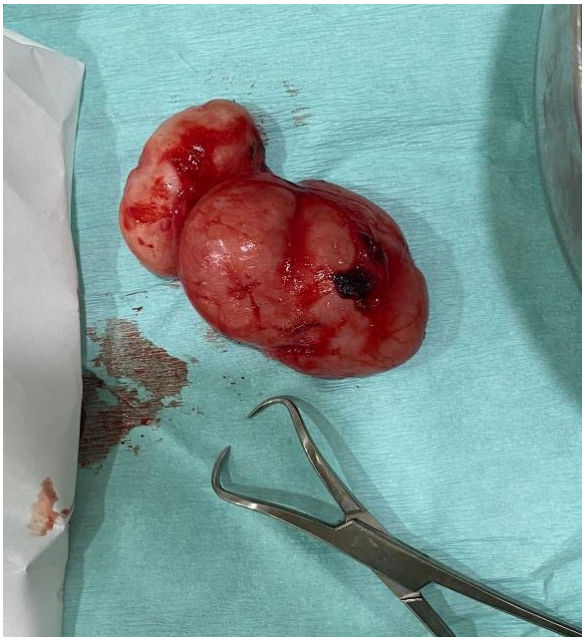


Figure 6. Clitoral mass post-excision.

. The tissue specimen from the clitoris revealed a tumor mass, partially hypercellular and densely packed, while other parts appear loosely arranged with a background of collagen matrix. The tumor mass consists of a proliferation of spindle-shaped cells with round to oval spindle nuclei, both ends pointed, some wavy, with fine chromatin and eosinophilic cytoplasm. Interspersed among the tumor cells, shredded carrot-like collagen is observed.

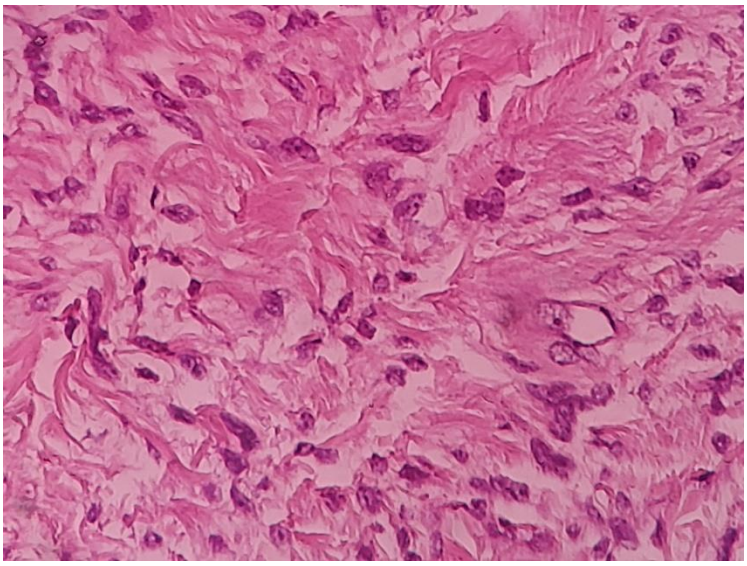


Figure 7. Histopathologival examination of clitoral mass.

DISCUSSION

There are very few case reports regarding clitoral neurofibromas. The first case of clitoral neurofibroma was documented by Haddad and Jones in 1960.[1] In Indonesia, there has only been one reported case of clitoral neurofibroma by Bilommi and Drajat in 2015.[2] Clitoromegaly can be seen as congenital or acquired so in any age. The majority of clitoromegaly cases related with NF are congenital. The differential diagnosis of ambiguous genitalia should include clitoromegaly due to NF.[3] Surgical resection has been regarded as the treatment of choice for these lesions given their progressive growth. The incidence of malignant degeneration of neurofibromas ranges from 13% to 29%, which increases with age. No recurrences have been reported following adequate excision, although reported follow-up has been limited and no longer than 1 year. [4,5]

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