

CASE REPORT

Nodular Hidradenoma: A Worrisome Mass Lesion

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Nodular hidradenoma is a benign neoplastic lesion of the sweat gland which is rare in its occurrence. It commonly occurs in the upper trunk and extremities. Complete excision is the only surgical treatment and avoids recurrence. We herein report a case of nodular hidradenoma that presented as right shoulder lump in a middle-aged woman. Clinical and radiological struggles were futile to establish a definitive diagnosis of this lesion. However, histopathology of the excised tumor unveiled the diagnosis of nodular hidradenoma.

Keywords: Nodular; Hidradenoma, Mass lesion

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INTRODUCTION

Nodular hidradenoma is identified as tumor of the skin that takes its origin from the sweat gland.^{1,2} Its common locations are the scalp, face, neck, shoulders, breast and upper limbs.^{3,4} This tumor is frequently observed in elderly females.⁵ It is a slow-growing tumor that usually presents as a single, firm, painless lump that is hard to analyze clinically and radiologically.^{6,7} The risk of local recurrence and metastasis are linked to a malignant counterpart of nodular hidradenoma.⁸ The surgical excision of tumor curative for benign nodular hidradenoma and histopathology is helpful in establishing its diagnosis.⁹ Herein, we report a case of a 37-year-old female with right shoulder lump that was surgically removed and diagnosed to be nodular hidradenoma based on histopathology report.

CASE REPORT

A 37-year-old woman came to the outpatient department of General Surgery at the Government THQ Hospital Sabzazar, Lahore on 18th May 2021 to seek medical consultation for a painless lump on

her right shoulder with overlying skin changes. The lump appeared four years back and gradually increased in size. On physical examination, there was a 5x3cm irregular, non-tender, firm, mobile mass on the medial aspect of the right shoulder with overlying thinning of skin. There was no ulcer and discharge were absent (Figure 1A). The mass was found to be in the subcutaneous plane without any underlying muscle adherence. There were no palpable lymph nodes in the axillary, supraclavicular and cervical lymph area.

Ultrasound examination revealed a richly vascular, well-defined and multiloculated, predominantly cystic lesion (4.3x3.3x3.8 cm) having mixed echogenicity with thick vascular septations and echogenic internal solid components (Figure 2A).

The solid component showed a rich vascular supply having arterial and venous waveforms on spectral doppler (Figure 2B). No internal calcification was appreciated and there was no axillary lymphadenopathy. As the tumor was long standing, mobile and without clinical evidence of

lymphatic metastasis, a provisional preoperative diagnosis of benign soft tissue tumor was made and subsequently removed by complete surgical excision under general anesthesia.

A lobulated encapsulated lesion with involved overlying skin was completely excised with elliptical skin incision (Figure 1B & C) and wound was approximated with interrupted sutures (Prolene 2/0) (Figure 1D). No underlying muscle infiltration was observed during removal of tumor (Figure 1C).

Excised tumor was sent for histopathological examination which reported it as completely excised nodular hidradenoma. Serial sectioning showed a firm cut surface measuring 28x15x11 mm, with cystic cavities filled with greenish gelatinous material. Section of the mass also showed skin with nodular circumscribed lesion (Figure 3A).

Cells seen under microscope were uniform with vesicular nuclei and focally prominent nucleoli and grooves (Figure 3B). Patient was discharged on the same day of surgery. Normal wound healing was observed on follow up visits and stitches were removed on the 10th day of surgery. There was no local recurrence upto 6 months of follow up visits.

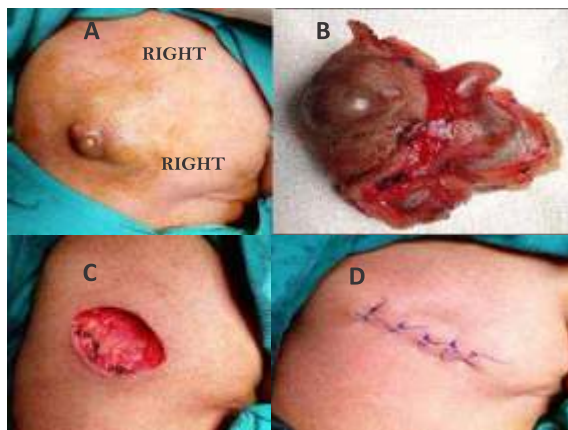


Figure 1: A: Benign soft tissue tumor on medial aspect of right shoulder, B: Excised tumor, C: Wound after complete excision of tumor, D:

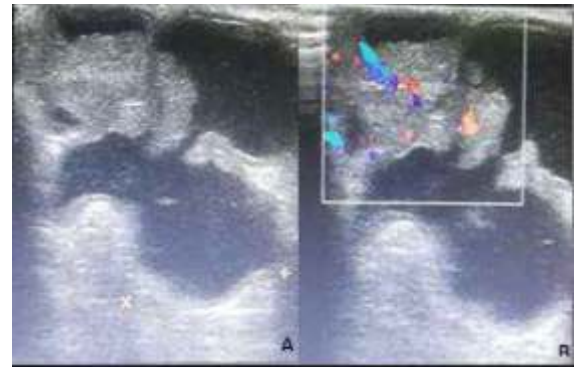


Figure 2: Suspicious richly vascular mixed echogenicity predominantly cystic lesion of right shoulder on USG. A: Well defined multi-lobulated mixed echogenicity predominantly cystic lesion, B: Solid component shows rich vascular supply

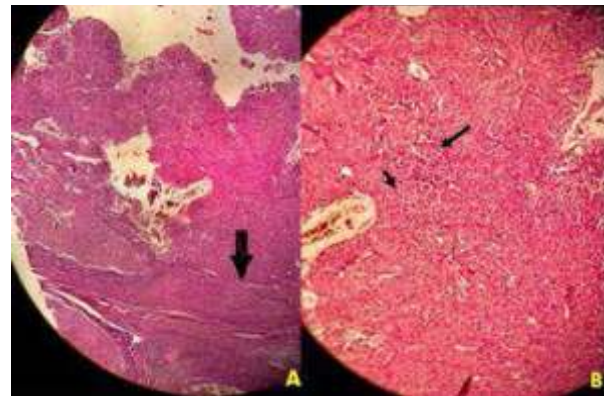


Figure 3: A: Section shows skin with nodular circumscribed lesion (Black arrow), B: Cells are uniform with vesicular nuclei and focally prominent nucleoli and grooves (Black arrows)

DISCUSSION

A growing lump with skin disfigurement always draws the special attention of both the patient and surgeon. Nodular hidradenoma is a rare disease so, it is difficult to make a diagnosis preoperatively.¹⁻⁴ Clinical, radiological and operative findings are not enough to define it accurately, therefore, histopathology helps to make a definitive diagnosis.⁶⁻⁹ A few cases of nodular hidradenoma have been reported in past literature.¹⁻⁹ Similar to the current case report, Bijou et al, Jaitly et al, Ano- Edward et al, Jain and Kundu et al, have also reported nodular hidradenoma in females. However, hidradenoma in male patients has also

been reported by Kataria et al, Govindarajulu, Pandit and Desa. Although middle and old aged groups are commonly affected by this disease, as in this case report, but Jaitly et al and Jain have detected this pathology in teenage girls also. Likewise, Pandit and Desai have observed it in young males.

The slow growth of this tumor as reported by Ano-Edward et al and Kundu et al is in accordance with the current case report however, Jaitly et al, has reported rapid growth of tumor in a young female. Benkirane et al has stated longest duration of tumor growth i.e. 30 years.

According to previous literature common sites of occurrence of nodular hidradenoma are head, neck, upper trunk and extremities however, Kataria et al has reported it in the groin area as well. Also, Benkirane et al reported it in the leg. Interestingly, hidradenoma has also been reported in the breast by Jaitly et al and Ano-Edward et al. In line with our findings, Govindarajulu reported hidradenoma lump to be painless without any ulcer and discharge. On the contrary, however it was reported to be painful with skin ulceration and serous discharge in case reported by Jaitly et al. Serous discharge from lump was also witnessed by Bijou et al.

In contrast to current case there was no past history of surgery on same lump however, Jain, had operated on a recurrent lump. In agreement with current case, regional lymphadenopathy was not observed in any of the nodular hidradenomas reported by Bijou et al, Ano-Edward et al, and Govindarajulu.

Similar to current case, a preoperative diagnosis was made through incisional biopsy by Bijou et al. As opposed to the absence of local recurrence or features of malignancy in the current case report, 10% local recurrence risk has been reported in past literature. 6.7% of cases have also shown malignant transformation. Immunohistochemical examination helps in confirming the diagnosis of nodular hidradenoma however, it was not utilized in this case.

Clinical and radiological evidence along with histopathology seems sufficient to assess the true nature of nodular hidradenoma.

CONCLUSION

Female gender, a common occurrence in the upper body, long duration of symptoms (more than a year) and nodularity of lump with overlying skin changes without regional lymphadenopathy are the known clinical characteristics of nodular hidradenoma.

However, histopathological examination remains the gold standard for a confirmative diagnosis. With regard to treatment, a complete excision of the mass avoids the recurrence of this benign disease and provides a complete cure.

Conflict of interest:

The authors declared no conflicts of interest.

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