A Rare Case Report of Trichilemmal Carcinoma of Scalp

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Abstract: This case report documents the management of a 68-year-old female with trichilemmal carcinoma of the scalp, emphasizing the role of adjuvant radiotherapy following surgical excision. The patient presented with a recurring scalp swelling, initially suspected to be a dermoid cyst. Diagnostic imaging identified a well-circumscribed lesion, which upon surgical excision and histopathological examination, was diagnosed as trichilemmal carcinoma. The patient underwent successful excision and local reconstruction. The recurrence of the tumor with close surgical margins necessitated adjuvant radiotherapy. The treatment, involving a 60Gy dose via 3DCRT technique, was well-tolerated, and the patient remained free of local, regional, or distant recurrences over a two-year follow-up. This report underscores the importance of clear surgical margins in managing trichilemmal carcinoma and suggests that adjuvant radiotherapy can be a vital component of treatment for local control, especially in cases of local recurrence and close margins.

Keywords: Trichilemmal Carcinoma, Scalp, Surgical Excision, Adjuvant Radiotherapy, Recurrence Management

1. Case Report

A 68 year old, elderly female presented with complaints of swelling over scalp since 3 years. Patient had undergone excision under local anesthesia after which swelling recurred and has gradually increased in size over last 6 months. She is a known case of hypertension and atrial fibrillation on regular medication.

On local examination- swelling noted in left parietal region of scalp, 3x4 centimeters,non-tender, no lymphadenopathy. Initial impression was of dermoid cyst. NCCT Brain reported a solitary, well circumscribed, round shaped, soft tissue attenuating lesion with central hypo-attenuation area, noted arising from subcutaneous plane of scalp in left parietal region - 29x27x41mm abutting left parietal bone. No evidence of calcification/ scalloping or erosion of underlying bone noted.

Mild diffuse loss of neuroparenchyma with prominent sulcal and basal cisternal spaces associated with bilateral symmetrical prominence in left ventricles.

Under General Anesthesia, excision and reconstruction with local rotation flap was done. Post op HPE reported- invasive tumor with pseudo glandular pattern with central debris, cords and trabeculae lying desmoplastic stroma. NOlymphovascular or perineural invasion. Lateral margin was 0.2cm. Other margins were negative.Features were consistent with trichilemmal carcinoma of scalp. In view of local recurrence and close margin of 0.2cm, she was further taken up for adjuvant radiation therapy by electrons with dose of 60Gy in 30fractions by 3DCRT technique.

2. Discussion

TrichelemmalCarcinoma is an unusual malignant lesion with the histological features suggesting an intermediate to high grade malignancy and can be treated with complete excision. Malignant transformation could be following trauma, chronic inflammation .Standard of care for this tumor has been surgical excision with demonstration of clear margins . Histologically clear margins are crucial for locally aggressive growth pattern and local recurrence potential .Local cervical lymph node metastases and distance metastases of this neoplasm have seldom been reported in the medical literature .Periodic surveillance without adjuvant therapy is generally sufficient.

However, in our case, in view of local recurrence after surgery and close margins after re-excision, she was decided to be further treated with adjuvant radiotherapy with electrons. The patient was treated with 6 MeV electron beam RT prescribed to surgical bed plus 1-cm margins at all directions, namely the planning target volume.

Although literature does advocate of adjuvant chemotherapy in some cases, it was not advised in this case as there were no other high risk features on histopathology, no evidence of any lymph node or distant metastasis. The treatment was well tolerated with no acute or chronic complications. The patient was alive with no local, regional, or distant recurrences at 2years of her follow-up.

3. Conclusion

Therefore, Local adjuvant radiotherapy can be considered as an add-on treatment after surgical excision for local control of trichilemmal carcinoma of scalp.

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