FUNGATING SCROTAL MASS WITH FACIAL NERVE PALSY IN AN ADVANCED TESTICULAR EMBRYONAL GERM CELL TUMOUR : UNUSUAL OCCURRENCE.

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ABSTRACT

Background: Fungating scrotal mass and lower motor neuron facial nerve palsy (LMN-FNP) are unusual traits of testicular cancer. A 49-year-old farmer with recurrent right hemi-scrotal swelling that expeditiously grew to involve the whole scrotum. He had a nick on the swelling and the resultant ulcer extended rapidly over the mass and right groin. There were associated penile deformity and right lower leg swelling. The angle of his mouth became inclined to the left side with inability to close the right eye. He had right orchidectomy five years earlier for right testicular mass through the scrotal approach but no histology was done.

On examination, he had a huge fungating scrotal mass that extends to the right groin with saxophone penile deformity. There were multiple left inguinal lymphadenopathies with right pedal oedema. There was grade III right LMN-FNP, tympanometry showed an absent acoustic reflex and pure tone audiometry revealed right sensorineural hearing loss.

His α-fetal protein was elevated and the tissue biopsy confirmed embryonal testicular germ cell tumor. The Computerized tomography (CT) scan of the abdominopelvic and temporomastoid regions showed metastatic deposits in the retroperitoneal group of lymph nodes and fallopian canal respectively. The patient was optimized and commenced on cytotoxic chemotherapy but five days after completing the first course he developed sudden inability to swallow, lapsed into unconsciousness and ceased breathing despite resuscitation effort.

Conclusion: Fungating scrotal mass and facial nerve palsy from an advanced testicular germ cell tumour are unusual. Therefore, a high index of suspicion is essential for the diagnosis testicular tumour secondaries as the cause of facial nerves palsy and the tumour invasion the cause of the fungating mass. It has a negative impact on patient's body image plus the quality of life and probably presaged poor outcome.

Keywords: Facial nerve palsy, Testicular tumour, Chemotherapy, Paraneoplastic syndrome

INTRODUCTION

The literature records very few plights of fungating scrotal masses from invasion by advanced testicular tumours consequent upon breach of the tough tunica albuginea often occasioned by a prior intervention. A search of the recent medical literature yielded no report on lower motor neuron facial nerve palsy (LMN-FNP) as causally or otherwise related to testicular cancer. However, cranial neuropathies may be a manifestation of a myriad of pathologies including invasion by malignant cranio-oropharyngeal regional tumor and secondaries from distant body structures.[1] This is subsequent to spread to the base of the skull that is usually by the haematogenous route from a distal site. Neuropathies could additionally be due to primary nerve lesion, drug induced as in the course of cytotoxic chemotherapy [2,3]and/ or as a complex of paraneoplastic syndrome. Among the urological tumors, literature listed cranial neuropathies in

patients with castration-resistant prostate cancer as the cancer further climax in the ensuing tumor progression.[4,5,6,7] Furthermore, isolated facial nerve palsy was reported as a primary presentation of advanced prostate cancer by Abdulkadir et al in a patient that disregarded the incipient mild lower urinary tract symptoms.[8] Fungating scrotal mass together with Facial nerve palsy are, however, unusual traits in testicular cancer.

CASE REPORT

A 49-year-old farmer with recurrent right hemi-scrotal swelling which expeditiously grew to involve the whole scrotum. He had a nick on the swelling from traditional intervention at home and the resultant ulcer extended rapidly over the mass and the right groin. There was associated penile deformity and progressive right lower limb swelling. He observed the angle of his mouth became inclined to the left side with an inability to completely close the right eye and the escape of feeds from the right side of his mouth while chewing. He had right orchidectomy five years earlier through the ipsilateral hemiscrotum at a peripheral hospital, but no histology was done.

On physical examination, he was pale and wasted; with complete grade III House-Brackmann right lower motor neuron facial nerve palsy (Figure 1). He had no peri-auricular swelling and the nasal and throat examination findings were unremarkable. There was a huge fungating scrotal mass that extends to the right groin with penile Saxophone deformity **(**Figure 2). He had multiple left inguinal lymphadenopathies with right pedal oedema and a limping gait.

The flexible nasopharyngolaryngoscopy showed prominent pharyngeal lymphoid follicles with patent Eustachian tubes. Laryngeal findings were essentially normal. Impedance audiometry revealed normal left tympanogram, and absent acoustic reflex and type B (flat) tympanogram on the right while pure tone audiogram showed traits of sensorineural hearing loss.

The serum α-fetal protein was elevated and the histology of the wedge incisional biopsy from the lesion confirmed embryonal testicular tumor (Figure 3). The CT scans of abdominopelvic and temporomastoid region revealed retroperitoneal lymph nodes and fallopian canal deposits respectively (Figure 4). His plain chest radiograph showed multiple areas of macro radio-opacities with an irregular broad-based radio-opacity on the left lower zone of the lung (Figure 5). The patient was optimized; he had two units of whole blood transfused with tetanus prophylaxis and was maintained on antibiotic, analgesic, adequate hydration and twice daily wound dressing. The PCV was 31.9%, White cell count was 13.3x 10^9/l, Platelet was 442x10^9/l, renal function test, liver function tests, serum calcium and phosphate (Ca^2+, PO_4+) were normal ranges but the albumin was at the lower range of normal. Urine microscopy, culture and sensitivity yielded no growth, no larvae of Strongyloides *stercoralis nor were other parasite seen on stool microscopy.* His performance status was approximately 60 %(Karnovfsky score). He was counseled on his condition and he consented to palliative chemotherapy. He tolerated the first course of a combination of Cisplatin, Etoposide and Bleomycin (BEP). Unfortunately, five days after completing the first course he developed a sudden difficulty in swallowing while having breakfast. Thereafter he lapsed into unconsciousness with persistently unexplained fall in blood pressure and finally ceased breathing notwithstanding the resuscitation effort. Possible cause of dead was tumour emboli to the brain.

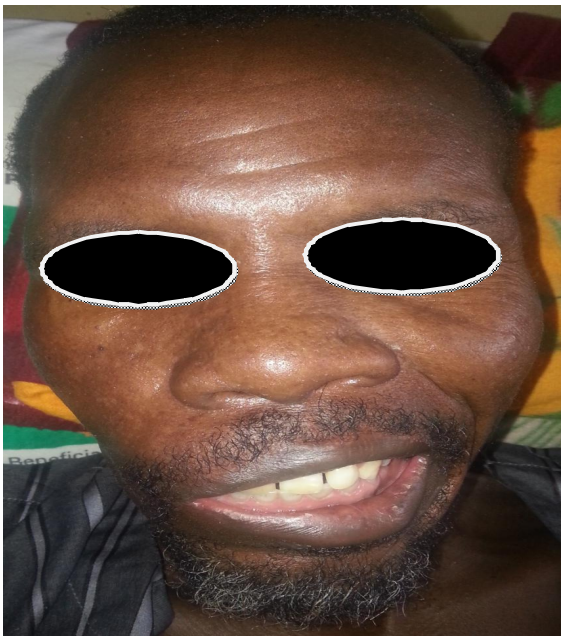

Figure 1: Photo image of the patient revealing right grade III facial nerve palsy.

Figure 2: Photograph of the patient's fungating scrotal/ groin mass with penile saxophone deformity.

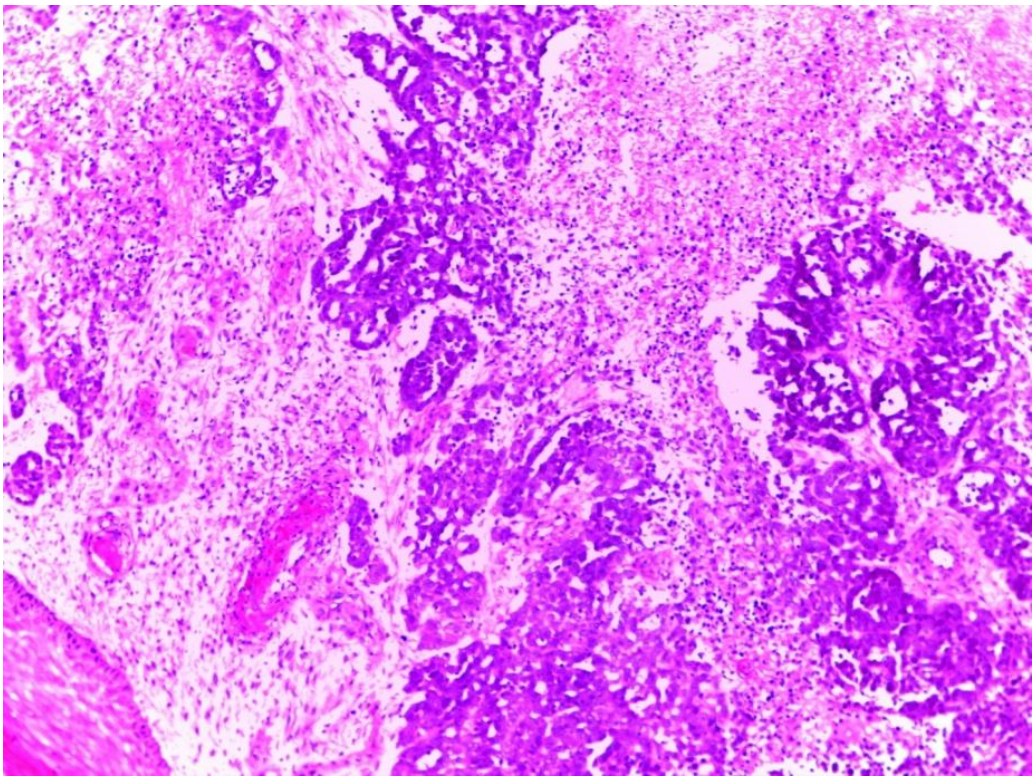

Figure 3: Photo-micrograph of tissue histology showing characteristic areas of haemorrhage in embryonal carcinoma.

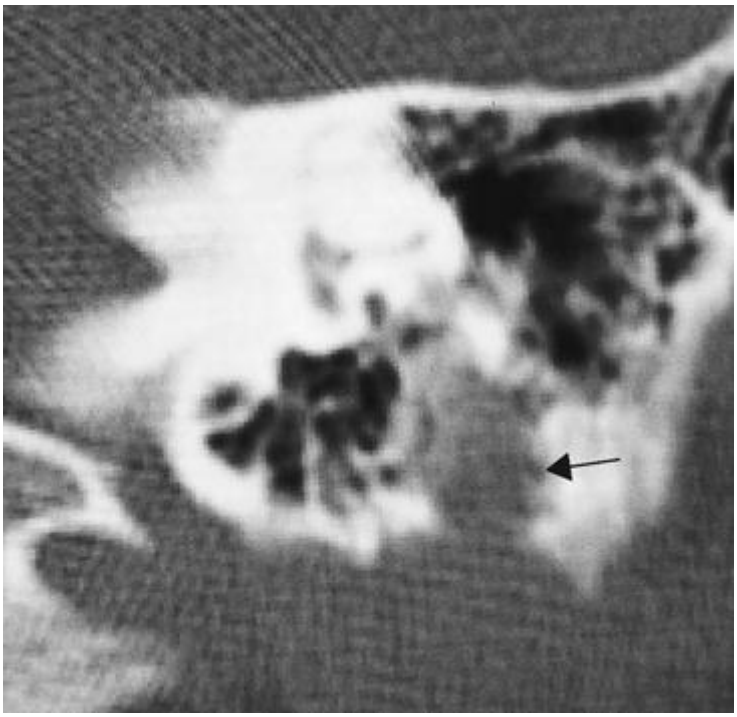

Figure 4: CT scan showing fallopian canal expanded and its irregular bony margins (Arrowed)

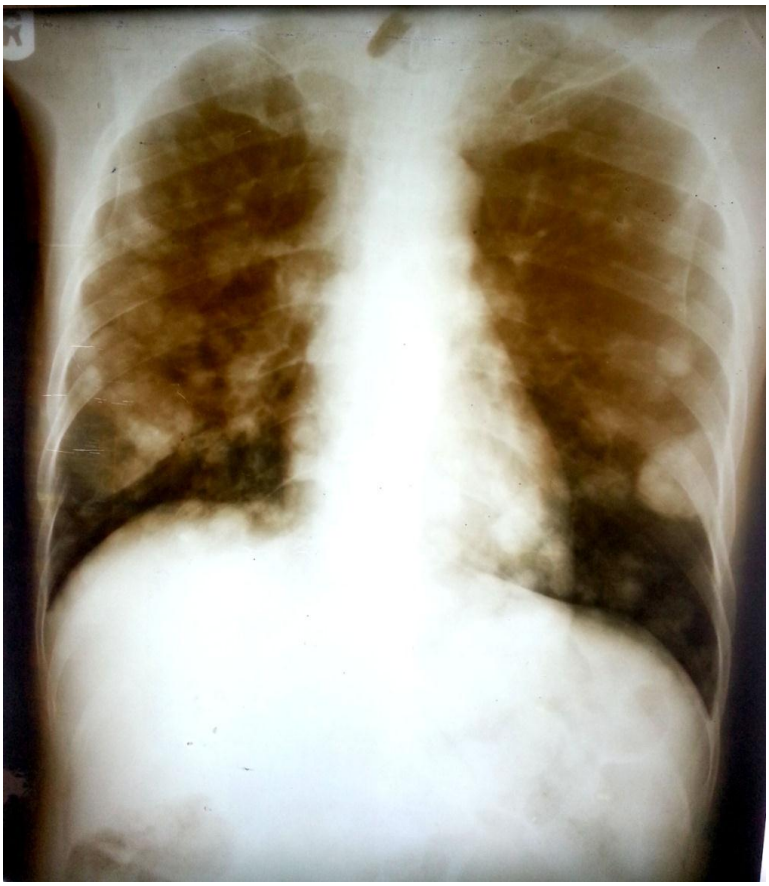

Figure 5: Plain Chest radiograph showing multiple areas of opacities in the lung.

DISCUSSION

The earlier appraisal of testicular and para-testicular tumors in our populace showed they equal only 0.2% of the entire tumors histologically diagnosed in the 15year period.[9] Sadly, the index patient was initially inappropriately managed by a non-specialist and his presentation was delayed. Late presentation is the prevailing trend in our communities and consequently a high cancer-specific mortality.[10] Contrarily, on the occasion of early presentation, testicular tumors are in the category of the most curable tumors with good chemo and radiosensitivity.[11] The index patient was most probably the first reported case of a fungating scrotal mass with facial nerve palsy from an advanced testicular embryonal germ cell tumours in the English literature.

The patient was a 49year old man who was within the age bracket of testicular cancer.[12] He had orchidectomy 5 years earlier via the scrotal approach and that breached the tunica albuginea. The recurrent tumor he presented with was perhaps initially slow growing but subsequently progressed aggressively and a nick from traditional intervention at home resulted in a fungating mass. Our literature search yielded five reported cases of fungating scrotal masses resulting from testicular tumor and almost all had an initial breach in the tunica albuginea from an earlier surgical intervention[13,14,15,16,17] but none had facial nerve palsy. Isolated right facial nerve paralysis with an ipsilateral sensorineural hearing loss in the patient was-established with Pure Tone Audiogram. Pure tone audiometry is the important hearing assessment tool that utilises both air and bone conduction audiometry to distinguish between various forms of hearing loss. Other clinical features of temporal bone metastasis such as otorrhea, dizziness, and vertigo were absent. The histology confirmed embryonal germ cell tumour although the CD30 antibodies Ki-122 and Ber-H2 reactivity testing that would strengthen the diagnosis was not done because of the lack of availability in our center.[18] The CT scan of the temporomastoid region showed fallopian canal expansion with irregular bony margins in support of malignant deposits even though MRI usually gives clearer soft tissue imaging in the evaluation of cranial lesions.[19] The findings of widespread metastatic features on abdominal CT and both lung fields further advance distant metastasis as the most likely cause for the unilateral facial paralysis. This would have been confirmed at postmortem but for the relations disapproval of it.

Metastasis to the temporal bone and fallopian canal with facial nerve entrapment is unusual or presumably missed if mild. More often than not, this is asymptomatic or dimmed by more glaring secondaries in the cancer progression. Additionally, the assessment for secondaries to this region by imaging or at autopsy is not an established practice.[20,21]

Drug toxicities particularly cisplatin-based combination chemotherapy complicated by palsy following intra-arterial chemotherapy for a brain tumor has been reported.[2,3] However, in the index patient, facial nerve palsy and CT finding of tumor deposit were noted before the commencement of chemotherapy which was administered intravenously via Normal saline infusion. Peripheral neuropathy from paraneoplastic syndrome was reported by Rudnicki SA,[22] these are non-metastatic manifestations caused by bimolecular agents from the tumour or from the body in reaction to the presence of the tumor. In the index patient, the imaging study had established malignant deposit in the fallopian canal. Equally, ruled out in the index patient are infective, metabolic, traumatic, toxins and loco regional precursors of facial nerve palsy.[23] The patient could have benefited from radiotherapy[19] as a means of locoregional control of cancer but for the lack of availability in our center and affordability by the patient to allow for referral to radio-oncology center. Yadav *et al* recorded complete response using Bleomycin, Etoposide and cisplastin(BEP) combination in a patient with a fungating scrotal mass from to non-seminomatous germ cell tumor.[12] In index case, the tumor forged ahead with features of the 9th and 10th cranial nerve involvement; specifically, he developed an abrupt inability to swallow. Tumour embolization to the brain may be culpable for the impromptu event. The subsequent unconsciousness with persistently unexplained fall in blood pressure and finally cessation of breathing notwithstanding the resuscitation effort could be an exhibit of the late stage of brain stem coning.

The exact cause of dead would have been straightened out if not for relations disapproval of the post mortem. Cranial nerve involvement from tumor metastasis, therefore, could probably be said to presage poor prognosis.

CONCLUSION

Although tumour invasion and distant metastasis are inherent to advanced malignant tumors; fungating scrotal mass and lower motor neuron facial nerve palsy are not usual traits of testicular embryonal germ cell tumor. The diagnosis of an advanced testicular tumour as the cause of these lesions, therefore, requires an index of suspicion. The dual lesions have a negative impact on the patient's body image and the quality of life. The facial nerve palsy particularly probably presaged poor outcome.

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