

A Case of Eccrine Tumour Metastasis to Spine Managed with Posterior Spinal Stabilization with Recovering Paraparesis

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Abstract:- Introduction: Tumour metastasis to the spine very rarely occurs from an adnexal tumour and an accurate and fast diagnosis is essential for good patient management.

Methodology: 52 year old male came with complaints of mid back pain since 2 months and weakness of bilateral lower limbs since 3 weeks with progressive loss of bowel and bladder control since 3 days noted at presentation. Patient was previously operated for excision of a mass over left hand hypothenar region 1 year back which on histopathological evaluation had showed an eccrine tumour. XRAYs revealed a T8 compression fracture of the spine and MRI was done which revealed compression fracture of T8 vertebra with involvement of posterior elements and an anterior epidural collection causing canal stenosis and similar lesions noted in T 7 and T 9 vertebra with a suspicion of metastasis. Hence a PET scan was done and showed lytic lesions in multiple vertebral bodies ,posterior elements,left iliac and left SI joint extending to acetabulum and femoral shaft.Patient was planned for stabilisation of spine with a vertebral biopsy and patient underwent a T7 to T11 posterior spinal stabilisation with polyaxial pedicle screws and biopsy from T8 vertebra. Postoperatively, the patient was evaluated and paraparesis recovered and patient was begun on physiotherapy exercises for faster recovery. The histopathology report showed features of poorly differentiated metastatic squamous cell cancer and immunohistochemistry markers were done which was positive for CK and CK 5 / 6 which indicated a skin or adnexal tumour. Patient is recovering postoperatively with mobilisation using KT brace and on a wheel chair with recovering neurological status.

Results- :An eccrine tumour with metastasis to the thoracic spine and lesions over pelvic bones was managed with spinal stabilisation using pedicle screws with biopsy from the T8 vertebra suggesting an adnexal primary lesion.

Conclusion- :A rare case of an adnexal tumour metastasis to the spine can be managed effectively with posterior spinal stabilisation with partial or complete recovery of neurological status. Importance of a good history with

early identification using PET scan and an immunohistochemistry to locate the primary were key turning points in management of this case.

Keywords:- Paraparesis, Eccrine, Tumour, Spine.

I. INTRODUCTION

Eccrine carcinoma is a rare but distinct type of sweat gland tumor. They tend to recur locally, and their spread to distant organs is very uncommon.¹ In this case, the identification of the tumour using histopathology and immunohistochemistry markers was done and a diagnosis was confirmed after histopathological reporting. There is literature suggesting eccrine tumors of neck metastasizing to the brain and spine and in our case the primary was an eccrine tumour of the hand.² Management is usually a combination of radiotherapy +/- excision of involved region.

However in case of vertebral involvement a posterior stabilisation with decompression is required to prevent neurological deficits.³ **Eccrine carcinoma** is a rare skin condition characterized by a plaque or nodule on the scalp, trunk, or extremities. It originates from the eccrine sweat glands of the skin, accounting for less than 0.01% of diagnosed cutaneous malignancies. Eccrine carcinoma tumors are locally aggressive, with a high rate of recurrence. Lack of reliable immunohistochemical markers and similarity to other common tumors has made identification of eccrine carcinoma difficult.

Most eccrine carcinomas which have not spread can be cured by wide local excision. However, metastatic disease carries a poor prognosis.³

II. MATERIALS AND METHODS

A 52 year old male came with complains of mid back pain since 2 months and weakness of bilateral lower limbs since 3 weeks with progressive loss of bowel and bladder control since 3 days noted at presentation. On arrival patient had complete loss of power of bilateral ankle dorsiflexion and plantarflexion and also great toe extension with loss of knee flexion and extension. However, hip flexion power was 2/5

bilaterally Sensory loss was noted till the level of umbilicus . This was clinically indicating an involvement of a T7 or T8 vertebral region.

Patient, in the past, was operated for excision of a mass over left hand hypothenar region 1 year back which on histopathological evaluation had showed an eccrine tumour.

Following this, radiographs were done and they revealed a T8 compression fracture of the spine which correlated with our clinical findings and MRI was done (*Fig. 1*) which revealed compression fracture of T8 vertebra with involvement of posterior elements and an anterior epidural collection causing canal stenosis and similar lesions noted in T 7 and T 9 vertebra with a suspicion of metastasis/infection.

Keeping the differentials in mind, a PET scan was done⁴ and showed lytic lesions in multiple vertebral bodies ,posterior elements, left iliac and left SI joint extending to acetabulum and femoral shaft. Patient was planned for stabilisation of spine with a vertebral biopsy and patient underwent a T7 to T11 posterior spinal stabilisation with polyaxial pedicle screws and biopsy from T8 vertebra.

Post-operatively, the patient was evaluated and paraparesis recovered (*Fig. 3*) and patient was begun on physiotherapy exercises for faster recovery. The histopathology report showed features of poorly differentiated metastatic squamous cell cancer and immunohistochemistry markers were done which was positive for CK and CK 5 / 6 which indicated a skin or adnexal tumour (*Fig. 2*). Patient is recovering postoperatively with mobilisation using KT ace and on a wheel chair with recovering neurological status.

III. DISCUSSION

A similar case of a 45-year-old female who presented with a 2-year history of a scalp mass in the occipital area with lymph node spread. Pathology confirmed the diagnosis of eccrine tumour. Postoperatively, she received radiation to the involved areas. Four years later the patient presented with left hemiparesis and underwent craniotomy for gross total resection of the metastasis. This recurred after 2.5 years and she underwent another craniotomy for gross total resection followed by whole brain radiation. In addition, the patient had metastases to T11 vertebral body and the left C6 to 7 neural foramen. Moreover, the patient developed leptomeningeal disease in the spine. The metastases to the spine were treated with radiation therapy. The patient died 1.5 years later.¹

However in our case there was metastasis to the pelvis and spine which was managed and patient had a good outcome. Spinal stabilisation of the affected segment alongwith decompression was required to prevent further pressure over the cord.

IV. RESULTS

An eccrine tumour with metastasis to the thoracic spine and lesions over pelvic bones was managed with spinal stabilisation using pedicle screws with biopsy from the T8 vertebra suggesting an adnexal primary lesion with a good postoperative outcome.

V. CONCLUSION

A case of an adnexal tumour metastasis to the spine which is a rare tumor can be managed effectively with posterior spinal decompression and stabilisation with a good recovery of neurological status. Importance of a good history with early identification using PET scan and an immunohistochemistry to locate the primary lesion were key points in management of this case.

FIGURES



Fig 1- MRI Sagittal cut showing T8 vertebral lesion

IHC Markers	Result
CK	Positive
CK 5/6	Positive
CK7	Negative
CK20	Negative
LCA	Negative
Synaptophysin	Negative
TTF1	Negative
NKX3.1	Negative
PSA	Negative
CD99	Negative
CD10	Negative
SALL4	Negative
HepPar-1	Negative
GATA3	Negative
S100	Negative
PAX8	Negative
Inhibin	Negative

Fig 2- IHC report of the lesion

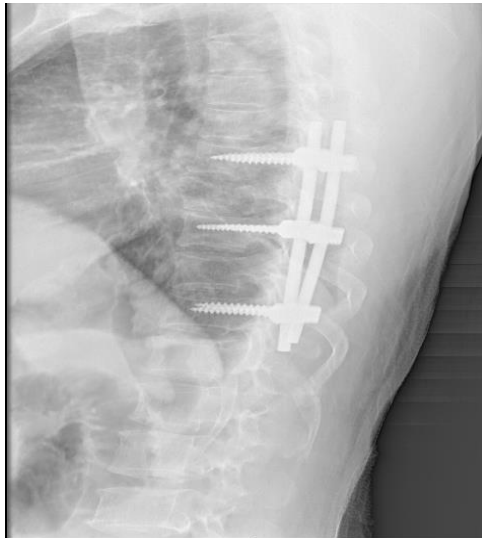


Fig 3- Radiograph following the procedure.

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