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## Clival Metastasis from Primary Cervical Carcinoma- Rare Lesion

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**ABSTRACT:** Metastatic lesions of clivus are rare, usually from prostatic and renal carcinoma. Carcinoma of cervix metastasizing to clivus is reported rarely after treatment of primary tumor. But clival metastatic lesion at presentation is reported only once in literature. Our patient a 61 year old female patient who presented with clival lesion later diagnosed to be a metastatic lesion from primary cervical carcinoma is rarely reported in literature.

**KEYWORDS:** Clivus, Clival metastases, carcinoma cervix.

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### INTRODUCTION

Tumors of the clivus are rarely seen. They represent less than 1% of intracranial tumours, most common among them are chordoma and chondrosarcoma.<sup>1,2</sup> Metastatic tumours of the clivus are even more rarely reported in literature, usually from skin, prostate, or lung primary. Metastatic lesion to skull base from primary cervical carcinoma is also rare. Bony metastatic lesions usually seen in cervical carcinoma occur in spine or pelvis. It occurs in patients with an advanced primary disease or in a recurrent disease.<sup>3,4</sup> In literature, till date less than 5 cases of clival metastasis have been reported, we present this rare case of carcinoma cervix which presented primarily with metastasis to the clivus.

### CASE REPORT

A 61-year-old female patient presented to us with headache and intermittent vomiting for 4 months. Patient was clinically examined in our department and radiological examination CT scan and MRI of brain with contrast was done. It showed an ill-defined lytic lesion in the clivus and involving the right petrous temporal bone, body, and part of right greater wing of sphenoid and extending into the right cavernous sinus. Patient underwent trans nasal transsphenoidal endoscopic excision of the lesion.

Histopathology was suggestive of metastasis of epithelial malignancy-squamous cell carcinoma. Patient underwent evaluation for primary lesion which included chest X-ray, pelvic ultrasonography and a CT scan of the neck, thorax, abdomen and pelvis. CT scan of pelvis revealed a 40 × 24 × 20 mm lesion involving the uterine cervix and a left iliac node of size 10 × 15 mm. Gynaecological examination under anaesthesia showed an infiltrating lesion involving the cervix, upper vagina and parametrium bilaterally. Biopsy of the lesion on cervix showed presence of a poorly differentiated squamous cell carcinoma. The patient was diagnosed as having stage IV cervical carcinoma and was advised palliative therapy.

### DISCUSSION

Single metastatic lesion of clivus is rare with less than 60 case reported in literature till date. Most common primary tumours metastasizing to clivus are prostatic and renal carcinoma<sup>4</sup>.

Bony metastases from carcinoma cervix can occur by: (1) Direct extension (2) direct extension to vertebrae from paraaortic nodes (3) hematogenous metastasis (Batson's venous plexus) and (4) systemic metastasis to distant bones. Bony involvement is seen by direct extension from para-aortic nodes into the adjacent vertebral bodies.<sup>5</sup> The clivus metastasis can be explained by hematogenous route via Batson's venous plexus. Venous system of skull base is directly communicating with spinal venous system (Cerebrospinal venous system).<sup>6,7</sup> The Breschet's veins at clivus are continuous with the spinal epidural veins of Batson. The intracranial venous system communicates with spinal venous system which in turn communicates with the sacral and pelvic veins. This route of metastatic spread was first described by Batson in the year 1967. This route could have played an important role in the dissemination of carcinoma cervix to the clivus in this patient. As published by Matsuyama et al and Thanappapasr *et al.* spinal column and pelvic bones were most common site of metastasis from cervical carcinoma.<sup>5</sup>

In all the studies published in literature, bony metastasis is seen after the treatment of primary tumour. In our case metastatic lesion to clivus was presentation which is very rarely reported (only 1 case report found in literature). Cervical cancer first spreads to local pelvic lymph nodes followed by para aortic nodes and then to bones, distant sites in advanced stage. The prognosis of these patients is poor and treatment is usually palliative.<sup>8,9</sup>

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### CONCLUSION

Clival metastatic lesion at presentation in a case of carcinoma cervix is rare. Rich venous channels communicating between the cranial compartment and spine through Batson plexus is the route of metastasis. So metastatic lesion from distant site should be kept in differential diagnosis while evaluating the lesions of clivus.

### Figure Legends-

Fig 1- CT Brain with contrast axial images showing the clival lesion.

Fig 2- CT Brain with contrast Saggital image showing the lesion.

Fig 3 a,b,c- MRI Brain with contrast Showing the clival lesion.

Fig 4 a,b,c – Post operative CT Brain with contrast showing subtotal excision of lesion.



Fig 1



Fig 2

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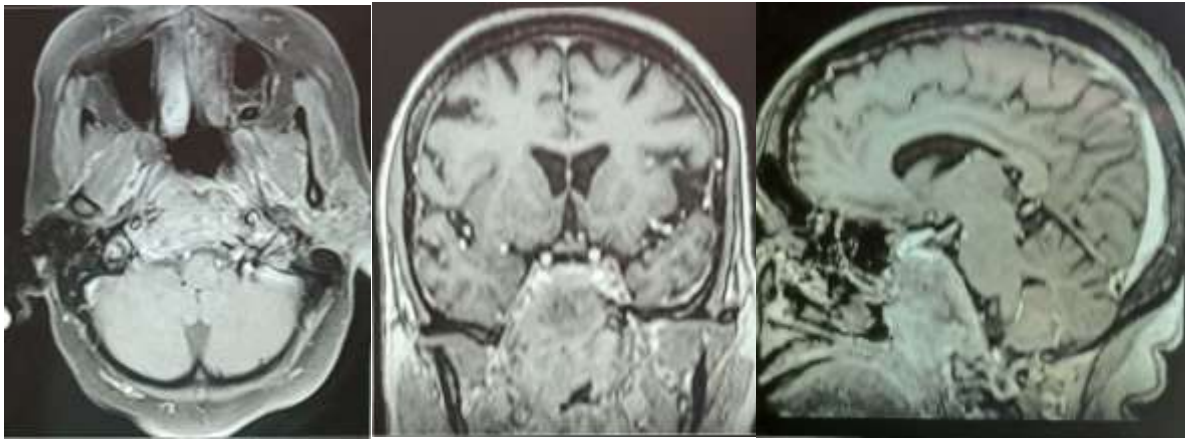


Fig 3 A, B, C



Fig 4 A, B, C

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