



BMH Med. J. 2019;6(2):74-77. **Case Report**

A Case Of Meckel's Cave Metastasis From Carcinoma Endometrium

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Abstract

Meckel's cave metastases are very rare. We report a case of Meckel's cave metastases arising from carcinoma endometrium.

Keywords: Meckel's cave, trigeminal neuralgia

Introduction

Meckel's cave is a small CSF containing space near the apex of the petrous portion of the temporal bone that contains the gasserian ganglion and major portions of the trigeminal nerve with its leptomeningeal coverings. It is in close proximity to the cavernous sinus supero-medially, the tentorium supero-laterally, the petrous bone infero-laterally and the clivus medially [1].

Tumors of Meckel's cave are very rare. The most common primary tumors of Meckel's cave are schwannomas and meningiomas [2,3]. We present a rare case of carcinoma endometrium metastasizing to Meckel's cave.

Case report

Elderly female patient presented with complaints of numbness and pain on the right cheek and right chin region for 1 month. Patient had history of bleeding per vagina for 1 month. She had no nasal or ear symptoms, odynophagia, dysphagia or neck swellings. Neurological examination showed right LMN Facial nerve palsy. There was paresthesia of face involving the dermatome of right V2-V3 cranial nerve. MRI Brain showed marrow signal intensities involving the right petrous apex with adjacent patchy meningeal thickening, extending into the Meckel's cave and enhancing abnormal marrow signal intensities involving the right parietal bone (**Figures 1-3**).



Figure 1

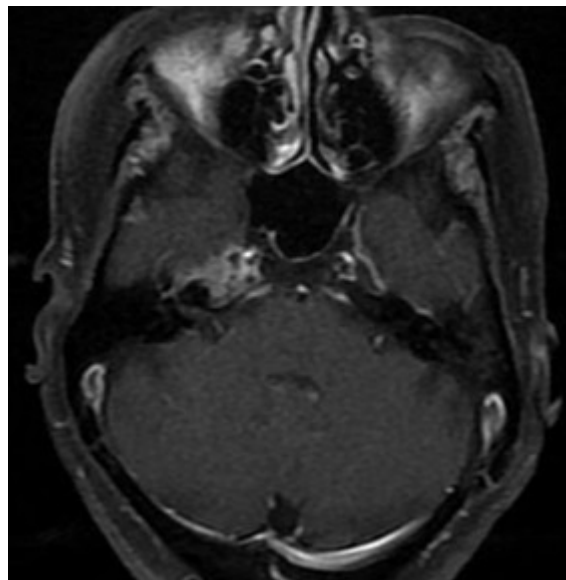


Figure 2

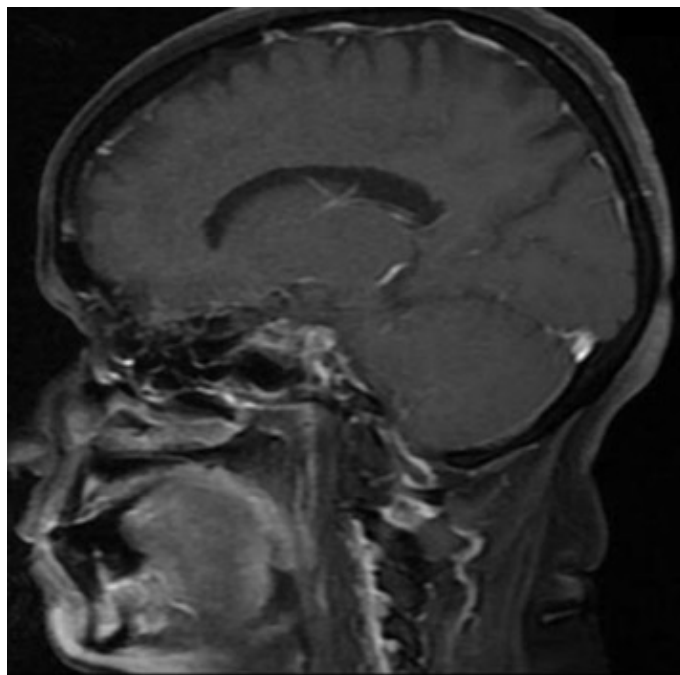


Figure 3

CT abdomen thorax were done to look for primary lesions and this revealed a bulky uterus with heterogeneous lesion involving the fundus and body of uterus infiltrating upto both anterior and posterior serosal surfaces with extension to bilateral parametrium. There was loss of fat plane with posterior wall of urinary bladder. There was a broad area of contact with anterior wall of rectum also. Bilateral enlarged iliac, retrocaval and para-aortic lymphnodes were present. USG guided aspiration was done from the infiltrative lesion from uterus. Histopathology was reported as endometrioid type adeno carcinoma. We treated her with palliative radiation (3DCRT of 3000cGy/10 fraction, 300cGy per fraction) to whole brain (including the Meckel's cave) and pelvic tumor. 1 month after completion of radiation therapy her neurological deficits improved and vaginal bleeding also was controlled. She is on regular follow up for the last 8 months and remains asymptomatic.

Discussion

Metastasis to Meckel's cave occurs via hematogenous spread or perineural spread [2]. Primary or metastatic tumor at the level of Meckel's cave causes irritation or deficits of fifth cranial nerve [2,3]. Typical or atypical trigeminal neuralgia is the most common symptom of a Meckel's cave tumor. Perineural extension from tumors in V1 or V2 distribution follow the nerves in a retrograde manner into cavernous sinus. Hence patient may have multiple cranial neuropathies.

Previously the occurrence of metastases in Meckel's cave has been described from esophageal, colorectal as well as breast primaries [3,5,6]. Intracranial metastases of the ophthalmic (V1), maxillary (V2) and mandibular (V3) nerves or the trigeminal nerve trunk have been reported previously with follicular carcinoma of the thyroid [7], systemic lymphoma [8], hepatocellular carcinoma, ovarian cancer and melanoma of the skin, but they are not directly involving tumors of Meckel's cave but the presentation are similar to metastasis to Meckel's cave.

Treatment of trigeminal neuralgia could vary from medications such as tranquilizers or neuroleptics. In the advent of failure of medications, patients become candidates for stereotactic radio surgery (SRS) or needle rhizotomy [9]. Radio surgery, either Linac based or with Gamma knife, acts by denervation of the nerve with hypo fractionated radiation, with maximal level of pain relief typically achieved within one month [10]. Radiation treatment offers excellent local control and rapid symptom palliation.

Conclusion

Malignant lesions involving the structures of Meckel's cave are uncommon. Clinical manifestations may help to differentiate malignant lesions from meningioma or schwannoma. Patients with malignant tumors were more likely to be older, and have paraesthesia in comparison with patients with meningioma. Patients with malignant lesion usually present with pain and paresthesia in trigeminal distribution. A thorough systemic search for a primary as well as metastatic lesion should be done in patients with Meckel's cave tumor.

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