



## A Case Report on Patient With Single Cerebellar Mets and Gall Bladder Carcinoma.

<b>Dr.Rajesh Rawal</b>	(HOD radiodiagnosis department) New medical college and hospital ,kota(rajasthan)
<b>Dr.mahendra Arya</b>	(HOD radiodiagnosis department) New medical college and hospital ,kota(rajasthan)
<b>Dr.Sangeeta saxena</b>	(HOD radiodiagnosis department) (New medical college and hospital ,kota(rajasthan)

### ABSTRACT

Although overall uncommon, gallbladder adenocarcinoma is the most common primary hepatobiliary carcinoma and the 5th most common malignancy of the gastrointestinal tract. Predominantly affects older persons with long-standing cholelithiasis. Unfortunately, due to the largely asymptomatic nature of these tumours, presentation is typically late with the majority of tumours being large, unresectable, with direct extension into adjacent structures or distant metastases present at diagnosis. The cancer commonly spreads to the liver, bile duct, stomach, duodenum. And lymph nodes, spread to brain is uncommon. Here we present a case with a rare presentation of single cerebellar metastasis from gall bladder carcinoma and no evidence of any other organ metastasis including nodal metastasis.

### KEYWORDS

#### Introduction:

Carcinoma gb is a common biliary tract malignancy and the incidence is particularly high in some geographical areas including India also. Risk factors include cholelithiasis, chronic typhoid infection, porcelain gb and exposure to carcinogens.

Carcinoma spreads most commonly via direct invasion to the liver, invasion of duodenum, stomach and pancreas is less often. The rich lymphatic supply allows rapid spread to lymph nodes most commonly at porta hepatis, para-pancreatic and para-aortic nodes. Metastasis to brain from gb are very rare.

Diagnosis of gb carcinoma is done by USG (80%), CT or MRI. A large mass replacing the gb fossa is the most common presentation. Focal or mural thickening is the least common presentation of GB carcinoma.

#### Case report

A 48 yr old male presented to our department with complaint of ataxia and imbalance during walking. No other significant complaint was there. The patient did not show any symptoms of weight loss, fever or respiratory distress.

A CT scan of head was performed with contrast. CT showed an irregular sized, well marginated, iso to hyperdense lesion in left cerebellar hemisphere causing compression effect and adjacent edema. Heterogeneous contrast enhancement was seen. Considering the possible diagnosis of metastasis as a single cerebellar lesion in adult patient, further diagnostic workup was done, including USG whole abdomen and CECT abdomen.

Abdominal ultrasound - revealed Heteroechoic gb fossa lesion with adjacent loss of definition with liver parenchyma.

Colour Doppler study of gb showed increased vascularity.

CT abdomen revealed heterogeneous gb fossa mass lesion with mild enhancement and loss of adjacent definition with liver parenchyma.

No evidence of any lymph nodal metastasis or extension to any adjacent organ was noticed.

FNAC of the lesion showed adenocarcinoma of GB.

As there were clinical or lab findings to support the diagnosis of carcinoma GB, cerebellar metastasis from the primary GB malignancy was considered as the most pertinent diagnostic possibility.

#### Discussion:

Systemic metastases from gallbladder carcinoma occur frequently, but involvement of the central nervous system is a rarity. The incidence of central nervous system (CNS) metastases from gallbladder carcinoma is approximately 2%. [1,2] CNS metastases, when present, from a primary gallbladder carcinoma are usually associated with other systemic metastases also. No other metastatic sites were detected in this patient. A randomized trial of patients with systemic cancer and a radiological diagnosis of single brain metastasis showed that combined treatment of surgery and adjuvant radiotherapy compared with radiotherapy alone led to a longer survival especially in patients with stable extra-cranial disease. Patients with progressive extracranial cancer had a median overall survival of 5 months irrespective of given treatment [11]. Though brain metastasis from gallbladder carcinoma is very unusual, it should not be overlooked. Clinicians should keep in mind this possibility in patients of gallbladder carcinoma presenting with central nervous system symptoms [8]. There have been reports in the past where single lesions in brain were treated by surgical intervention. Such an approach was difficult in this case as both lobes of the brain were involved by two different lesions and patient was not fit for an extensive surgery of the lesions involving both lobes of brain simultaneously or two surgeries at an interval. The residual neurological deficit after surgery for both lesions could have been more than the symptoms patient was having before surgery from one of the lesions while the other metastatic foci was asymptomatic. Thus, surgical excision was done for the larger symptomatic lesion in left parietal region and whole brain radiation therapy was given for treatment of the smaller lesion in the right lobe and other possi-

ble micro-metastases followed by combination chemotherapy. Studies have shown benefits of earliest possible introduction of treatment for brain metastases in such cases. Although early treatment has been linked to prolonged survival and improved quality of life, brain metastases represent a late manifestation of GI cancers and remain an ominous sign.

**IMAGES::**



**CT scan brain showing single cerebellar metastatic lesion**



**USG abdomen showing GB fossa mass lesion**



**CECT abdomen showing GB mass**

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