ORIGINAL RESEARCH PAPER

Oncology

KEY WORDS: Choroid Plexus Carcinoma, adult, Craniospinal Irradiation, rare

case report on choroid plexus carcinoma of lateral ventricle of brain

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ABSTRACT

Choroid Plexus Carcinoma is a rare malignant intra-ventricular neoplasm of pediatric age group. Rarely, It may be seen in older individuals.Surgery followed by Radiotherapy is the main treatment strategy.
A 26 yrs old male patient with Choroid Plexus Carcinoma is reported. Pre- operative and post-operative radiological imaging done following sub total excision of tumour, suggestive of residual tumour. Patient then followed by cranio spinal irradiation. patient is on follow-up with complete regression of tumour.

Choroid Plexus Carcinoma is rare central nervous system tumour, derived from the Choroid Plexus epithelium, affecting mainly children under 3 years of age1. Even though the occurrence of this neoplasm is exceptional beyond childhood, pathologist should consider a malignant Choroid Plexus tumour when making the differential diagnosis of an intra-ventricular papillary neoplasm in adults5. We presented 26 yrs old patient with Choroid Plexus Carcinoma, He was treated surgically by craniotomy with sub-total excision and irradiation of the cranium and spinal cord following surgery.

Case History:

A twenty-six years old male patient was admitted to our hospital with complaints of headache for two months, convulsion two episode, and vomiting for fifteen days. Bilateral papilledema was detected during the fundus examination. Magnetic resonance imaging(MRI) Brain suggestive of left ventricular space occupying lesion (figure 1,2)

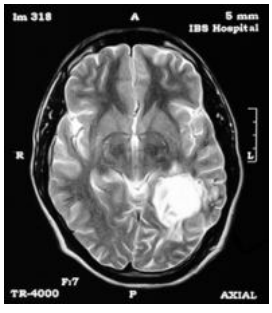


Figure-1: MRI brain coronal section suggestive of space occupying lesion in right fourth ventricle of brain with surrounding perilesional edema

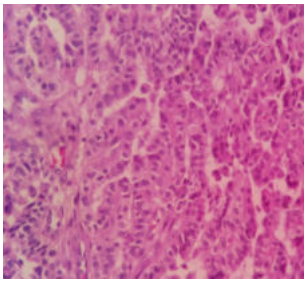
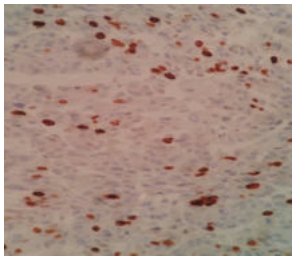


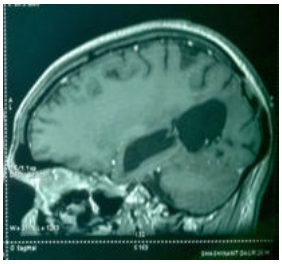
Figure-2: MRI brain saggital section suggestive of space occupying lesion in left high parietal region in the fourth ventricle with perilesional edema



Patient underwent surgery left parietal craniotomy with subtotal excision of tumour. Histopathological examination (HPE) suggestive of choroid plexus carcinoma (figure 3).

Figure:3 Histopathological examination H&E stain with 100 x zoom suggestive of complex gland like structures with high eosinophilic cytoplasm suggestive of choroid plexus carcinoma.

Figure: 4 Immunohistochemistry (IHC) suggested high MIB 1 index more than 15%



Post-operative MRI Brain suggestive of Residual lesion in Left high parietal region shows irregular peripheral ring enhancement. MRI spine and CSF cytology was performed to detect CSF seeding of metastasis, were negative. Then patient was treated with Adjuvant Radiotherapy Cranio Spinal irradiation(CSI) by conventional 2D planning system. Spine received 30 gray in 15 fractions and Brain received 60 gray in 30 fractions, Radiotherapy completed and patient tolerated well. Patient was on first follow up. MRI brain was performed suggested post radiotherapy gliotic cavity with complete regression of tumour (figure 5)

Figure-5 : Post op MRI brain on 1st follow up suggestive of

complete regression of tumour with post op gliotic cavity in left ventricular region.

Discussion:

Choroid Plexus Carcinomas are rare intra-ventricular neoplasms derived from Choroid Plexus epithelium, and accounts for only between 0.4-0.6% of all intracranial and 2-3% of pediatric neoplasms. Choroid Plexus papilloma to carcinoma ratio of 5:1, around 80% of Choroid Plexus Carcinomas are in children[6]. Clinically this group of tumours tends to cause hydrocephalus and increased intracranial pressure[3].There are fifteen cases reported of choroid plexus carcinoma in 2000 and pointed out that main symptom of this tumour is hydrocephalus (62.5%),intracranial hypertension (25%), convulsion (12%)[1]. in our patient hydrocephalus was present at time of admission and papilledema was the main neurological finding. the MRI features of our patient supported the diagnosis of Choroid Plexus papilloma, but Choroid Plexus Carcinoma was identified by histopathological examination following surgery. So it has been stated that pathologist should consider malignant tumour in diffrential diagnosis of intra ventricular neoplasm[5].

Choroid Plexus Carcinoma is a rare and frequently lethal tumour, its cure depends on the achievement of Gross total resection. study suggested that the contribution of Adjuvant therapies both irradiation and chemotherapy in the context of Gross total excision is unclear, but where such resection is not possible there may be a role for adjuvant therapy to permit more nearly complete resection[3]. We preffered irradiation following sub total excision of the tumour in our patient and obtained a good result in the short term.

In a study pre-operative use of chemotherapy also reported. It useful for volumetric reduction of tumour size[7].

CONCLUSION:

Choroid Plexus Carcinoma should be kept in mind in the differential diagnosis of all intraventricular mass lesion during the Radiological examinations especially in adult patients. early surgical resection and irradiation is an effective protocol to achieve good results[2].

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