Pilomyxoid astrocytoma in an elderly patient: A case report and review of literature

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Full Text

Sir,

Pilomyxoid astrocytomas (PMAs) are considered as the infantile variant of pilocytic astrocytoma (PA) with a more aggressive course. The occurrence of these tumours in the elderly population is very rare. We report a case of PMA of the thalamic region in a 62-year-old male. To the best of our knowledge, this is the third reported case in literature of PMA in an individual aged > 60 years.

Our patient presented with sudden onset of memory disturbances and behavioural alterations of 1-week duration. On examination, he was conscious with stable vital parameters. There was no deficit. Systemic examination and routine investigations were within normal limits. MRI brain showed a heterogeneously enhancing mass lesion in the right thalamic region [Figure 1]. The patient underwent pericoronal parasagittal craniotomy and gross total resection of the mass. Postoperative period was unremarkable. Microscopic examination of the submitted tissue showed a predominantly myxoid neoplasm containing monomorphic population of bipolar cells arranged in a predominant angiocentric pattern [Figure 2]. No Rosenthal fibres or eosinophilic granular bodies were seen. Glomeruloid vascular tufts were seen; however, no areas of necrosis or increased mitotic activity were noted. Ki-67 index was 4%. A diagnosis of PMA, WHO grade II, was established. There was no evidence of dissemination into cerebrospinal fluid. Hence, no further treatment was given, and the patient was kept under regular follow-up. {Figure 1}{Figure 2}

The term 'PMA' was first introduced by Tihan et al., in 1999 as a more aggressive variant of PA. [1] It was included as a separate entity in the 2007 WHO Classification of Tumours of the Central Nervous System. Both PMA and PA shows predilection for optico-chiasmatic and hypothalamic regions The mean age of the patients with PMA at the time of diagnosis is 18 months, whereas that of patients with PA is 58 months. [2] Komotar et
al., first reported a case of PMA outside the paediatric age group in a 28-year-old male. [3] Since then, there have been a few exceptional case reports of PMA in adults. We found only two case reports of PMA in individuals aged > 60 years. Skovrlj et al. [2] reported a case of PMA of the fourth ventricle in a 72-year-old male and Toyoda et al. [4] described PMA of the basal cistern in a 77-year-old male. Komotar et al. compared the long-term outcomes in age and location matched patients diagnosed with PMA and PA and found higher rates of local recurrence, cerebrospinal fluid dissemination and shorter survival times for patients with PMA than those with PA. [5]

Currently, there are no consensus guidelines on the management of PMAs. Wherever possible, gross total resection (GTR) is the primary treatment strategy, as GTR has been shown to be the most reliable predictor of outcome in children with low-grade gliomas where surgery can be performed without excessive morbidity. [2] Owing to the young age of patients diagnosed with PMA, adjuvant chemo-or radiotherapy is restricted to cases with subtotal excision or recurrence. [5] Taking this into consideration, our patient also did not receive any adjuvant therapy after GTR and is being kept under regular follow-up.

Reporting of more such cases is needed to define the epidemiology of these tumours and to formulate management guidelines in the adult patients who can withstand a more aggressive treatment.

References