ABSTRACT

Background: Metastatic tumours of brain are 10 times more common in brain than primary intracranial neoplasms. Metastases to the brain are debilitating causing neurological mortality and morbidity to cancer patients. Though it occurs during the late course of the disease it may sometimes be the first presenting feature in an occult primary.

Aims: To evaluate the usefulness of CK7 CK20 & TTF1 as a first panel of investigation for the evaluation of occult primary in cases of metastatic carcinomatous deposits from unknown primary in tertiary care centre.

Materials and methods: It is a prospective and retrospective study conducted in the Department of Neuropathology, Institute of Neurosurgery, RGGH. 50 cases of metastatic carcinomatous deposits from unknown primary out of 1553 specimens sent for histopathologic examination for a period of 24 months are analysed.

Results: 50 cases analysed show that metastatic carcinomatous deposits from unknown primary peak between 50 and 60 years and mean age of presentation is 52.7yrs with a male preponderance (M:F =1.5:1). Imaging shows a predominance of solid lesions (64%) and solitary lesions (72%) with majority left sided (50%). Squash – HPE correlation showing 82.5% sensitivity. CK7 +CK20- TTF1+ being the predominant pattern obtained (21%) on immunohistochemical analysis correlating with the outcome lung adenocarcinoma is the major source of occult primary. The panel of CK7 CK20 & TTF1 is 91.67% sensitive in stratifying the possible source of primary in metastatic carcinomatous deposits of unknown primary.

Key Words: Brain metastasis, carcinoma, Unknown primary, CK7, CK20, TTF1