ABSTRACT

TITLE OF THE ABSTRACT: Histopathological and Immunohistochemical study of Hepatoblastoma

DEPARTMENT: General pathology

NAME OF THE CANDIDATE: Dr. Kiruthiga.K.G

DEGREE AND SUBJECT: M.D., PATHOLOGY

NAME OF THE GUIDE: Dr. Banumathi Ramakrishna

OBJECTIVES:

To study the histopathological features of various subtypes of Hepatoblastoma and to correlate the immunohistochemical expression of CK19, Beta-catenin & EpCAM, with histological parameters of tumour behaviour and survival.

METHODS:

Fifty five cases of HB were included in this study. Detailed histopathological examination of was done. Immunohistochemical expression of CK19, Beta-catenin and EpCAM were correlated with histological subtypes, tumour behaviour, response to chemotherapy and survival. Chi-square/ Fisher’s exact test was used to compare the association between categorical variables. ‘p’ value of less than 0.05 was considered significant. The overall survival (OS) and event free survival (EFS) were calculated. Kaplan-Meier curve was used to depict the survival and log rank test was used to compare the survival in different groups.
RESULTS:

Most common epithelial subtype was fetal (43.18%) and mixed epithelial (54.83 %) in pre and post-chemotherapy groups respectively. CK19 was expressed in 54.17% and 72.22% of embryonal component, nuclear beta-catenin in 48.65% and 57.14% and EpCAM in 100% and 82.14% of tumours in pre and post-chemotherapy groups respectively. Fetal subtype had a better outcome. Nuclear beta-catenin expression was associated with lower EFS and strong EpCAM expression with tumour viability. Age ≤2yrs, male sex, alpha-feto protein<10000 IU/ml post-chemotherapy, multifocality, size ≤5cm, PRETEXT I&II, mitosis ≤2/10hpf, microvascular invasion and viable tumour <50%predicted higher EFS.

Key words: Beta-catenin, CK19, Chemotherapy, EpCAM, Hepatoblastoma.