Importance of intraoperative consultation for the diagnosis of central nervous system lesions and evaluation of its diagnostic accuracy

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Aims: Frozen section diagnosis provides surgeons, physicians and pathologists a provisional diagnosis to plan out their management plan. By this study, we intended to evaluate the importance of intraoperative consultation-Frozen Section (FS) diagnosis in CNS tumors. In this study, the diagnostic accuracy and the various limitations of using FS diagnosis of CNS tumors were determined.

Methods & Material: In study, we analyzed retrospectively the results of FS and final diagnoses of all CNS tumors were made at our institute for duration of one year from July 2014 to June 2015.

Results: We studied 252 cases of age group from 1 to 76 years. Out of which, 155 (61.50%) cases had complete concordance between FS and final diagnosis, 77 (30.5%) cases had partial concordance and 20 cases (8.0%) were discordant. Considering the concordant and partially concordant cases, the accuracy rate was 92.0%, sensitivity was 93.42%, specificity was 91.66% and positive and negative predictive values were 94.66% and 59.45%, respectively.

Conclusions: A Kappa agreement score of 0.75 (substantial agreement score) showed high concordance for FS results with permanent section. We came to final conclusion that high sensitivity and specificity was seen with FS diagnosis in the cases of CNS tumors.

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Protective effects of Urtica dioica seed extract in aflatoxicosis: Histopathological and biochemical findings

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The ameliorative potential and antioxidant capacity of an extract of Urtica dioica seeds (UDS) was investigated using histopathological changes in liver and kidney of broiler, measuring serum marker enzymes, antioxidant defense systems and lipid peroxidation (malondialdehyde (MDA)) content in various tissues of broilers exposed to aflatoxin (AF). A total of 32 broilers were divided randomly into 4 groups: Control, UDS extract treated, AF treated and AF+UDS extract treated. Broilers in control and UDS extract treated groups were fed on a diet without AF. The AF treated group and AF+UDS extract treated groups were treated with an estimated 1 mg total AF/kg feed. The AF+UDS extract groups received in addition 30 ml UDS extract/kg diet for 21 days. The AF treated group had significantly decreased body weight gain when compared to the other groups. Biochemical analysis showed a small increase in the concentrations of serum aspartate aminotransferase, alanine aminotransferase, gamma glutamyl transpeptidase and lactate dehydrogenase in the AF treated group compared to that of the control group, whereas concentrations of these enzymes were decreased in the AF+UDS group compared to that of the AF treated group. Administration of supplementary UDS extract helped restore the AF induced increase in MDA and reduced the antioxidant system towards normality, particularly in the liver, brain, kidney and heart. Hepatorenal protection by UDS extracts was further supported by the almost normal histology in AF+UDS extract treated group as compared to the degenerative changes in the AF treated broilers. It was concluded that UDS extract has a protective hepatorenal effect in broilers affected by aflatoxicosis, probably acting by promoting the anti-oxidative defense systems.

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