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Angiomorphometric characteristics of the breast cancer in the peripheral and internal tumoral areas

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The objective of this study is to correlate the morphometric microvascular characteristics of the breast cancer in the peripheral and internal areas of the tumor with the prognostic factors. Histologic sections from 80 cases of infiltrative breast cancer were immunostained with CD34 and evaluated with the image analysis IMAGE J program following the method of Giatromanolaki A., et al. The microvascular count is significantly higher in the tumor margin with gradual decrease toward the internal areas. The microvascular count in both tumoral areas peripheral and internal associated with the tumor size, histological grade and vascular invasion. The microvascular count in the peripheral area show association with the expression of cerbB-2, ki67, while in the internal area associated with the expression of cerbB-2, ki67 and p53. In the peripheral area the decrease of vascular perimeter and compactness and the increase of the factor of shape associated with higher histologic grade. Whereas the decrease of compactness and increase in the factor of shape associated with the positive expression of cerbB-2 and negative expression of estrogen receptor. Regarding the microvasculature in the internal tumoral area the increase of the area, perimeter and ferret (all represent increase vascular size) associated with the expression of ki67, whereas the area associated with the vascular invasion, indicating that in the peripheral tumoral area microvasculature with smaller perimeter and more regular and circular shape associated with poor prognostic factors while in the internal tumoral area microvasculature with larger caliber associated with tumors more proliferative and invasive.

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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 has 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 antioxidative defense systems.

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