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Title of Thesis:

Experimental Pathological Study on Toxic Effect of Tamoxifen Citrate in Female Rats, Enzyme, Histochemistry and Scanning Elecron Microscope

Abstract of Thesis:

Tamoxifen is the only proven oral agent for the adjuvant hormonal receptor positive breast cancer in premenopausal women and it can be used in both pre and post menopausal women who are at increased risk of breast cancer. The present topic is a 90 days toxocologic pathologic study in mature female rats by oral intubation. Clinically treated animals were lethargic in poor condition some show hemoptisis ((bleeding from nostril)) with increased breathing, aggressive behavior, loss of body weight and poor condition , half closed eye and slight discoloration of urine.

Macroscopically animals killed at termination or scarified due to mori bind stage or died during experiment, these animals showed enlarge liver, pale enlarged kidneys and some with overian follicular cyst.

Microscopically histopathological changes range from dilated / vacuolated proximal convoluted tubules as renal change because tamoxifen citrate was consider the target organ for toxic effect, liver showed enlarge hepatocyte especially in the central lobular region.

Interesting changes in female reproductive system as sequamouse metaplasia of the uterine endometrial gland and ovarian follicular cyst. Heart lesions were seen as vaculation of myocardial muscles cells also area myocardial degeneration with hemoginus cytoplasm.
In the lung there were areas of dilated alveoli and or emphysema like, in pancreas vacuolated of islets cells of lanker hanse, in stomach papillary proliferation of none glandular region papilloma like in treated animals in compression with untreated control

Mammary gland showed evidence of atrophy with lack of acini. Biochemical changes include increased Alanine Amino Transferase, Aspartate Amino Transferase enzyme of liver suggestion liver injury. Increased creatinine and urea indicating evidence of renal failure.