
Immunohistochemical study using monoclonal antibodies for detection of lymphocyte subsets for detection of lymphocyte subsets in bilharzial urinary bladder and ureter

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This study was performed on fifty five male humans with an age ranging from thirty to sixty two years. Fifty of these cases were bilharzial, twenty with bilharzial ureters and thirty cases with bilharzial urinary bladders. Five cases were non bilharzial and served as controls. Cryostat sections were prepared and fixed in acetone, then stained with Haematoxylin and Eosin for the general morphology and with immunoperoxidase stain in combination with a specific antibody for localization of cellular antigens via the enzyme peroxidase. The histological changes in bilharzial urinary bladders and ureters revealed that the epithelium showed hyperplastic changes. The lamina propria showed congestion, and chronic inflammatory cells, with massive deposits of bilharzial ova. The immunohistological picture showed that Pan T Lymphocytes (T3) were demonstrated within epithelium and lamina propria in non bilharzial and bilharzial urinary bladders and ureters. Their number in bilharzial specimens had a highly significant increase than that in non bilharzial specimens. The helper/inducer Lymphocytes (T4) were demonstrated within epithelium and lamina propria in bilharzial and non bilharzial urinary bladders and ureters. Their number in bilharzial specimens had a highly significant increase than that in bilharzial specimens. The suppressor/cytotoxic Lymphocytes (Tg) were demonstrated within epithelium and lamina propria in bilharzial and non bilharzial urinary bladders and ureters. The number in bilharzial specimens had a significant increase than that in non bilharzial specimens. In non bilharzial urinary bladders and ureters respectively no positively stained B cells were detected in the epithelium and lamina propria. In bilharzial urinary bladders and ureters, the lamina propria and submucosa were infiltrated with B lymphocytes. Few macrophages were found in epithelium and lamina propria of non bilharzial urinary bladders and ureters. In bilharzial urinary bladders and ureters, there was infiltration of macrophages in lamina propria. The statistical analysis denoted a high difference between non bilharzial and bilharzial groups. The reacting cells of anti-HLDR antibodies were found in a few number in epithelium and lamina propria of non bilharzial urinary bladders and ureters. There was a definite increase of cells in lamina propria. In non bilharzial urinary bladders and ureters the reacting cells of anti Leukocyte anti-bodies were detected in the epithelium and lamina propria in few

numbers. There was increased infiltration with leukocyte cells in the lamina propria and in between ova in bilharzial urinary bladders and ureters. In conclusion this study suggests that an active immune response was enhanced in the bilharzial bladder and ureter biopsies. This study could be a useful reference when applying this mode of investigation to pathological conditions.