

## HISTOPATHOLOGICAL ANALYSIS OF RENAL CANDIDIASIS

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**Introduction:** Under the recent progress in antifungal therapy, systemic candidiasis were thought to be decreasing in number. However, there has been few reports describing about histopathological reactions as a sequel to antifungal therapy. We examined autopsies with systemic candidiasis, histopathologically, especially with a focusing on renal candidial lesions to elucidate effects of antifungal agents.

**Materials and Methods:** Twenty-four patients autopsied in Ohashi Hospital, Toho University School of Medicine, were used in this study. Twenty three of twenty-four patients had no history of hematological malignancies. And five of twenty-four had been treated with antifungals in their last few days. Histopathological study were performed using slides stained with HE and PAS reaction.

**Results:** Four distinct histological patterns emerged from the study. The first was characterized by marked intratubular growth of *Candida* with peripheral extension of hyphae featuring radial pattern. No colliquative necrosis was accompanied. This was usually present the renal medulla. The second was foci with intratubular growth of *Candida* aggregated in the papillae. The third could be defined as abscess characterized by colliquation necrosis with prominent neutrophilic infiltrate. The fourth was characterized by restricted candidial proliferation with an encompassing of reacting macrophages with phagocytizing yeasts.

In five cases treated with antifungal agents, all had been received antibiotics, and three had been received operation and adrenocorticosteroids. Two of three with adrenocorticosteroids showed same histology of renal candidiasis as cases without antifungal therapy. These two patients had been treated with both adrenocorticosteroids and antifungals with using miconazole and fluconazole, respectively, for only a few days before death. However, in one of three cases with adrenocorticosteroids, candidial abscess were seen in renal cortex and medulla, and these abscess were surrounded by macrophage infiltrates. This patient had been treated with fluconazole for 7 days.

**Conclusion:** In patients with an administration of adrenocorticosteroids, antifungal agents was not seemed to be effective, so it revealed therapeutic difficulty to reach a cure or improvement of systemic candidiasis in these patients.