Histological Evaluation of Coexisting Chronic Prostatitis in Voluminous BPH

Introduction and Objectives: The significant correlation and role of chronic prostatitis in development and severity of BPH has been discussed by many authors. The aim of study was performing a complex macro-microscopic research with estimation of inflammatory process activity and cell populations in voluminous BPH.
Material and Methods: Material of study served fragments and nodules 'ad integrum' of the prostate removed by open prostatectomy in 40 patients aged between 54-78 years. Hematoxylin-eosin staining was used in 380 paraffin blocks, also van Gieson staining and histiobacterioscopia with azure-eosin were used. Statistical analysis was performed using variational and correlational methods, building histograms and multidimensional scanning. For comparative statistical analysis of the degree of pathological processes activity depending on tissue structural components was developed a scale for assessing changes in the 0 - no changes, 1 - low activity, 2 - moderate activity, 3 - pronounced activity.
Results: According to histopathological changes detected, the main character of lesions is BPH concomitant with chronic inflammatory processes in remission or acute outbreaks, with frequently or diffused areas of manifestation and alternating with relatively normal areas. The inflammation was found in the studied regions by the presence of infiltrative and proliferative cell populations that characterized different lesional inflammatory process evolution and degree of activity. However, the diversity of histopathological changes included dystrophic processes and circulatory disorders of various degree of intensity. According to comparative analysis performed, based on statistical data detected, it has been established that in fibromuscular stroma predominant indices consist of processes proliferative - fibroplastics (2) 3.6 ± 0.24 and the inflammatory-celular processes (1) 3.1 ± 0.27, while the dystrophic processes (3) and circulatory disorders (4) made up 2.2 ± 0.19 and 2.4 ± 0.22, respectively. Thus, inflammatory changes like proliferative - fibroplastics and inflammatory-cellular processes detected simultaneously BPH with predomination of circulatory and dystrophic changes was statistically significant ($p < 0.005$). According to the histograms of distribution of values incidence of inflammatory processes in acinar-ductal area was 84%, in stroma - 70% and 77% of cases in the zone of enucleation.
Conclusion: Character of inflammation in BPH led to the formulation of a clinico-morphological concept—to quantify the following forms of the evolution: BPH with diffuse lymphocytic chronic prostatitis, BPH with chronic polimorfocelular prostatitis; BPH with chronic granulomatous prostatitis, BPH with chronic prostatitis in local exacerbation, BPH with chronic prostatitis in abscesiv - destructive exacerbation. Evaluation of histopathological features of BPH contributes in solving clinico-surgical management and post-operative prognosis. The inflammation in residual cavity (lodge) and prostate dictates necessary of drainage and possibility of application of local treatment: antidolor, hemostatic, inflammatory, antimicrobial, and absorbent.