A retrospective evaluation of 512 results of UroVysion test applications.

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In the process of carcinogenesis, there is a time point of cellular genome destabilisation, a frequent symptom of which is chromosomal aneuploidy of chromosomes 3, 7 and 17 and a loss of locus 9p21 (UroVysion Test). In the course of 5 years, we carried out 512 UroVysion tests; in 68%, the patients were referred for diagnostics of urinary bladder cancer, in 8.4% for therapeutic effect follow up, in 2% it was dysuria, in 2.7% haematuria, in 0.5% chronic, recurrent cystitis, other indications - 1.4%, no precise indications - 13.1%. Diagnostic criteria: 25 morphologically abnormal cells were evaluated. A result was regarded positive when more than 10 cells demonstrated a loss of 9p21 fragment (the presence of one or the loss of both signals) or if more than 4 cells showed polysomy of two chromosomes (among chromosomes 3,7,17) or if more than 10 cells indicated polysomy for one of the above-mentioned chromosomes. Positive results were obtained in 56% of the cases. In the group with negative results, our attention was drawn to a statistically higher percent of rearrangements in 9p21 region, compared to changes in chromosomes 3, 7, 17. That observation did confirm the known fact that the change in question is the earliest one in the process of carcinogenesis. What was a surprising new observation was that the change was found in the group with negative results.