

# Turkish Journal of Medical Sciences

Turkish Journal  
of  
Medical Sciences



## Determination of Nuclear Matrix Protein 22 Levels in Cystitis, Urothelial Dysplasia and Urothelial Carcinoma

Ahmet GÖDEKMERDAN<sup>1</sup>, Seyfettin YAHŞİ<sup>2</sup>, Atilla SEMERCIÖZ<sup>3</sup>, Fulya İLHAN<sup>1</sup>, Nusret AKPOLAT<sup>2</sup>,  
Hayreddin YEKELER<sup>2</sup>

<sup>1</sup>Department of Immunology, Faculty of Medicine, Fırat Üniversitesi, Elazığ - Turkey

<sup>2</sup>Department of Pathology, Faculty of Medicine, Fırat Üniversitesi, Elazığ - Turkey

<sup>3</sup>Department of Urology, Faculty of Medicine, Fırat Üniversitesi, Elazığ - Turkey

 [Keywords](#)  
 [Authors](#)



[medsci@tubitak.gov.tr](mailto:medsci@tubitak.gov.tr)

[Scientific Journals Home Page](#)

**Abstract:** Urothelial carcinomas (UC) are the most common cancer type of the urinary system. The early diagnosis and treatment of UC are very important. The aim of this study was to evaluate the importance of the nuclear matrix protein 22 (NMP22) in early diagnosis of UC and to present its variation in cystitis and urothelial dysplasia (UD). Twenty patients with UC, 20 patients with UD and 20 patients with cystitis diagnosed by urinary cytological examination were enrolled in this study. In addition, 20 healthy people constituted the control group. Urine samples were collected from all patients and control subjects for NMP22 measurement and cytology. Those who were diagnosed with cytological malignancy were also histologically evaluated for accuracy. Additionally, the NMP22 levels of all participants were measured by ELISA. When compared according to the cytologic results, the NMP22 levels in the UC group were found significantly higher compared to those having UD, cystitis and control group ( $P < 0.05$ ). No statistically significant difference was found between other groups. It has been concluded that NMP22 can be used in the early diagnosis and determination of recurrences in UC. However, as the NMP22 level may be increased by other factors such as UD, cystitis, bladder stones and non-urothelial carcinomas of bladder, it is suggested urinary cytology that showed be jointly used with NMP22 measuring.

**Key Words:** Nuclear matrix protein 22, urinary cytology, urothelial carcinoma, urothelial dysplasia, cystitis

Turk J Med Sci 2006; **36**(2): 93-96.

Full text: [pdf](#)

Other articles published in the same issue: [Turk J Med Sci, vol.36,iss.2.](#)