

## عنوان مقاله:

The Correlation between CD44 and ABCG2 Expression and Pathological Grades of Bladder Carcinoma

## محل انتشار:

مجله بین المللی مطالعات سلامت, دوره 4, شماره 1 (سال: 1397)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

Background: The human bladder cancer progression is accompanied by the growth of side-populations of cancer stem cells (CSCs). The expression of ABCG2 and CD44, as the CSC markers, may be associated with different pathological grades of bladder cancer. This study was designed to identify the changes occurring in ABCG2 and CD44 in different types of bladder tumors at various grades. Methods: The sample included 67 patients with bladder cancer (63 males; 4 females) with a diagnosis of transitional cell carcinoma (urothelial cancer) using cystoscopy. Based on the tumor pathological grade, we divided the tumor biopsies into two low-grade (N=20) and high-grade (N=21) groups. The tumor samples along with 26 normal-looking bladder tissues were analyzed by techniques like immunohistochemistry (IHC) and total RNA extraction for qPCR. Results: Based on the results obtained by IHC analysis of ABCG2 and CD44 protein in bladder low- and high-grade tumors, these CSC markers showed significant elevation in malignant tissues in comparison to the normal bladder tissues. The scoring of ABCG2 expression in normal, low-grade and high-grade tissues was 28, 120, and 140 respectively. The CD44 scores in the normal bladder, low-grade and high-grade tissues were found to be 0.6, 11.5, and 29.0, respectively. The IHC data showed inconsistency with the qPCR data, suggesting an overexpression of ABCG2 (4-6.5 folds) and CD44 (15-22 folds) in the low and high-grade tumors in comparison to the normal bladder tissue. Conclusions: Finding a good relationship between ABCG2 and CD44 markers and different grades of bladder cancer demonstrated that these markers can be seen as potential and predictive indicators of bladder malignancy.

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... Based on the results obtained

### کلمات کلیدی:

.ABCG<sub>2</sub>, CD44, Bladder cancer, Tumor grade, Cancer stem cell

### لینک ثابت مقاله در پایگاه سیویلیکا:

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