



Expression and significance of S100P, CD147, and OCT4 in different prostate cancer tissue TNM stages

Q. Wang¹, J.G. Zhang¹ and W. Wang²

¹Department of Urology,
The First Affiliated Hospital of Henan University of Science and Technology,
Henan, China

²Department of Radiological,
Nanyang Hospital of Traditional Chinese Medicine, Henan, China

Corresponding author: J.G. Zhang
E-mail: jgzhang929@126.com

Genet. Mol. Res. 14 (2): 6844-6851 (2015)

Received September 18, 2014

Accepted February 11, 2015

Published June 18, 2015

DOI <http://dx.doi.org/10.4238/2015.June.18.27>

ABSTRACT. The aim of this project was to investigate the expression and significance of S100P, CD147, and OCT4 in prostate cancer tissue at different TNM stages. We enrolled 54 patients with prostate cancer, 40 with benign prostatic hyperplasia, and 20 subjects with normal prostates. S100P, CD147, and OCT4 were detected by immunohistochemistry. The positive rate of S100P detection was 18.52% in prostate cancer tissues, significantly lower than in normal and benign prostate hyperplasia tissues ($P < 0.05$). The positive expression rate of CD147 and OCT4 were 100 and 77.38% in prostate cancer tissue, respectively, both markedly higher than in normal and benign prostate hyperplasia tissue ($P < 0.05$). The positive rate of S100P in stage V was 0, which was significantly lower than in stages I (37.50%) and II (35.71%) ($P < 0.05$). OCT4 expression in stages III (86.67%) and V (94.12%) was higher than in stage I (37.50%). The positive rate of S100P in patients with distant metastasis was 4%, which was significantly lower than that in patients without metastases

($P < 0.05$). In contrast, the positive rate of OCT4 in patients with distant metastasis was 92%. S100P, CD147, and OCT4 expression in prostate cancer patients with different degrees of differentiation had no significant difference ($P > 0.05$). Overall, our results demonstrated that S100P expression in prostate cancer tissue was significantly decreased, whereas CD147 and OCT4 expression was increased. Their expression levels were closely associated with TNM stage and distant metastasis, but were not related to the degree of differentiation.

Key words: Prostate cancer; TNM grading; S100P; CD147; OCT4