

EXPRESSION OF CLAUDIN-1 AND 7 IN CLEAR CELL RENAL CELL CARCINOMA AND ITS CLINICAL SIGNIFICANCE

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Purpose: The authors of the present study investigated the correlations between the expression of claudin-1 and 7 in clear cell renal cell carcinoma (clear cell RCC) and clinical parameters

Subjects and Method: The subjects of this study were 119 patients who were confirmed for clear cell RCC among 154 patients. Their tissues were immunohistochemically stained with claudin-1 and 7. The correlations between the expression of claudin and clinical parameters were analyzed.

Results: Among the total 119 subjects, claudin-1 was expressed in 18 (15.1%) and claudin-7 in 31 (26.1%). Claudin-1 was expressed in patients who were older ($p=0.006$), who had a greater tumor size ($p=0.001$), who had a higher preoperative T stage ($p=0.044$), who had preoperative distant metastasis ($p=0.035$), and who had a higher Furhman nuclear grade ($p=0.004$). The expression of claudin-1 was not associated with sex, BMI, or Furhman nuclear grade. Claudin-7 was expressed only in patients who had a higher Furhman nuclear grade ($p=0.031$), and it was not associated with other parameters. The risk of postoperative distant metastasis was associated with the expression of claudin-1 ($p<0.001$), but not to the expression of claudin-7. The expression of claudin-1 and 7 was not associated with cancer specific survival.

Conclusion: In clear cell RCC, claudin-1 was expressed in patients who were older and who had a greater tumor size, who had higher T or M stages, and who had a higher Furhman nuclear grade. The expression of claudin-1 was associated with higher risk of postoperative distant metastasis.