Tumor-associated macrophages induce migration of renal cell carcinoma cells via activation of the CCL20-CCR6 axis

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Purpose
To investigate the relationship between Tumor-associated macrophages and renal cancer through chemokines.

Method and result
Macrophage-like cells enhanced renal cancer cell migration (Fig1). CCL20 was increased in the co-culture of renal cancer cells and macrophage-like cells. (Fig2)
Result and conclusion

CCR6 positivity and macrophage infiltration in renal cancer tissues were poor prognostic factors (Fig3).

Tumor-associated macrophages activate Akt of renal cancer cells via the CCL20-CCR6 pathway to enhance their migration ability (Fig4).

Fig3. Overall survival of CCR6-positive renal cell carcinoma and macrophage-infiltrating renal cell carcinoma

Fig4. Schematic diagram of the mechanism of renal cancer cell migration in the presence of tumor-associated macrophages