The relationship between chemokines CCL2, CCL3, and CCL4 with the tumor microenvironment and tumor-associated macrophage markers in colorectal cancer

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A complex network of chemokines can influence cancer progression with the recruitment and activation of hematopoietic cells, including macrophages to the supporting tumor stroma promoting carcinogenesis and metastasis. The aim of this study was to investigate the relation between tissue and plasma chemokine levels involved in macrophage recruitment with tumor-associated macrophage profile markers and clinicopathological features such as tumor-node-metastases stage, desmoplasia, tumor necrosis factor-?, and vascular endothelial growth factor plasma content. Plasma and tumor/healthy mucosa were obtained from Chilean patients undergoing colon cancer surgery. Chemokines were evaluated from tissue lysates (CCL2, CCL3, CCL4, CCL5, and CX3CL1)
by Luminex. Statistical analysis was performed using Wilcoxon match-paired test (p < 0.05).

Macrophage markers (CD68, CD163, and iNOS) were evaluated by immunohistochemistry samples derived from colorectal cancer patients. Correlation analysis between