

# Prognostic value of transglutaminase-2 overexpression in cancer patients: A Meta analysis

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## Abstract

Purpose Transglutaminase-2 (TG2) has been linked to cancer growth, proliferation, invasion, the epithelial-to-mesenchymal transition and metastasis, according to recent studies. Although the prognostic value of TG2 expression in a variety of cancer has been documented, it is still unclear because different researches have reported contradictory results. The goal of this study was to evaluate systematically the prognostic value of TG2 expression in cancer patients. Methods Web of Science, PubMed and Google scholar databases were searched up to 21 December, 2022. Eleven eligible studies were included in meta-analysis for determining the prognostic value of TG2 in cancer patients. While performing meta-analysis heterogeneity was checked by using I<sup>2</sup> Cochran's Q statistic. Random effect model was used in meta-analysis. Publication bias was assessed by using contour-enhanced funnel plots and Egger's test. Results Eight studies were used for the meta-analysis of overall survival and found that having high expression of TG2 caused poor overall survival (HR: 1.66, 95%CI: 1.07-2.56). For disease-free survival, five studies included to the analysis and meta-analysis show that having high expression of TG2 also caused poor disease-free survival (HR: 1.68, 95%CI: 1.34-2.11). Conclusion:Our meta-analysis showed that high TG2 expression level causes poor overall and disease-free survival.

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