3.

[World J Gastroenterol.](http://www.ncbi.nlm.nih.gov/pubmed) 2012 Apr 21;18(15):1793-9.

[**Cyclooxygenase-2 expression as a predictor of outcome in colorectal carcinoma.**](http://www.ncbi.nlm.nih.gov/pubmed/22553404)

[Al-Maghrabi J](http://www.ncbi.nlm.nih.gov/pubmed?term=Al-Maghrabi%20J%5BAuthor%5D&cauthor=true&cauthor_uid=23010642), [Buhmeida A](http://www.ncbi.nlm.nih.gov/pubmed?term=Buhmeida%20A%5BAuthor%5D&cauthor=true&cauthor_uid=23010642), [Emam E](http://www.ncbi.nlm.nih.gov/pubmed?term=Emam%20E%5BAuthor%5D&cauthor=true&cauthor_uid=23010642), [Syrjänen K](http://www.ncbi.nlm.nih.gov/pubmed?term=Syrj%C3%A4nen%20K%5BAuthor%5D&cauthor=true&cauthor_uid=23010642), [Sibiany A](http://www.ncbi.nlm.nih.gov/pubmed?term=Sibiany%20A%5BAuthor%5D&cauthor=true&cauthor_uid=23010642), [Al-Qahtani M](http://www.ncbi.nlm.nih.gov/pubmed?term=Al-Qahtani%20M%5BAuthor%5D&cauthor=true&cauthor_uid=23010642), [Al-Ahwal M](http://www.ncbi.nlm.nih.gov/pubmed?term=Al-Ahwal%20M%5BAuthor%5D&cauthor=true&cauthor_uid=23010642).

**Source**

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**Abstract**

**AIM:**

To correlate cyclooxygenase-2 (COX-2) expression profile with clinical and pathological variables to assess their prognostic/predictive value in colorectal carcinoma (CRC).

**METHODS:**

Archival tumor samples were analyzed using immunohistochemistry for COX-2 expression in 94 patients with CRC. Patients were diagnosed and treated at the Departments of Surgery and Oncology, King Abdulaziz University Hospital, Saudi Arabia.

**RESULTS:**

Fifty-six percent of the tumors showed positive cytoplasmic COX-2 expression, whereas 44% of cases were completely COX-2-negative. There were no significant correlations between COX-2 expression and sex, age, grade or tumor location. However, COX-2 expression revealed a significant correlation with tumor stage (P = 0.01) and distant metastasis (P = 0.02), and a borderline association with lymph node involvement (P = 0.07). Tumors with high COX-2 expression showed a higher recurrence rate than tumors with no expression (P < 0.009). In univariate Kaplan-Meier survival analysis, there was a significant (P = 0.026) difference in disease-free survival between COX-2-positive and negative tumors in favor of the latter. COX-2 expression did not significantly predict disease-specific survival, which was much shorter for COX-2-positive tumors. In multivariate (COX) models, COX-2 did not appear among the independent predictors of disease-free survival or disease-specific survival.

**CONCLUSION:**

COX-2 expression seems to provide useful prognostic information in CRC, while predicting the patients at high risk for recurrent disease.

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* [Female](http://www.ncbi.nlm.nih.gov/pubmed)
* [Humans](http://www.ncbi.nlm.nih.gov/pubmed)
* [Immunohistochemistry](http://www.ncbi.nlm.nih.gov/pubmed)
* [Kaplan-Meier Estimate](http://www.ncbi.nlm.nih.gov/pubmed)
* [Male](http://www.ncbi.nlm.nih.gov/pubmed)
* [Middle Aged](http://www.ncbi.nlm.nih.gov/pubmed)
* [Neoplasm Staging](http://www.ncbi.nlm.nih.gov/pubmed)
* [Prognosis](http://www.ncbi.nlm.nih.gov/pubmed)

**Substances**

* [Cyclooxygenase 2](http://www.ncbi.nlm.nih.gov/pubmed)
* [PTGS2 protein, human](http://www.ncbi.nlm.nih.gov/pubmed)