

Microvessel density (MVD) and cyclooxygenase-2 (COX-2)/ beta-catenin interaction are associated with relapse in patients with transitional carcinoma receiving adjuvant chemotherapy with paclitaxel/carboplatin: a hellenic cooperative oncology group (HECOG) study.

[Bamias A](#), [Kyriakou F](#), [Chorti M](#), [Kavantzias N](#), [Noni A](#), [Kyroudi-Voulgari A](#), [Rontoyianni D](#), [Kastritis E](#), [Xiros N](#), [Patsouris ES](#), [Murray S](#), [Tamvakis N](#), [Dimopoulos MA](#).

Source

Department of Clinical Therapeutics, Medical School, University of Athens, Greece.
abamias@med.uoa.gr

Abstract

BACKGROUND:

Cyclooxygenase (COX)-2 has been associated with proliferation, apoptosis and angiogenesis in urothelial cancer. The prognostic significance of COX-2 in patients who received adjuvant chemotherapy for urothelial cancer was examined.

PATIENTS AND METHODS:

Expression of COX-2, p53, ki67, beta-catenin, vascular endothelial growth factor (VEGF) and microvessel density (MVD) were studied retrospectively in 59 patients with urothelial cancer (pT3, pT4, N+) who had undergone surgery. The patients had subsequently received adjuvant chemotherapy.

RESULTS:

Thirty-eight out of 59 cases (64%) were positive for COX-2. COX-2 was not associated either with progression-free survival (PFS) or overall survival (OS). MVD levels ≥ 47 were associated with longer median PFS compared with lower levels (not reached vs. 13 months [95% CI: 8-18], $p=0.048$). The median PFS for patients with beta-catenin nuclear accumulation and COX-2 expression was 6 months (95% CI: 4-7) compared with 19 months (95% CI: 14-23) for neither or only one of these factors ($p=0.018$).

CONCLUSION:

MVD may be a useful indicator of relapse in high-risk urothelial cancer treated with adjuvant chemotherapy.