

# The relevance of Ki-67 and COX-2 immunoexpression in right-sided versus left-sided sporadic cancer colon in Egyptian patients

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**Background and aim** Cancer colon is one of the most common malignancies in Egypt. There are growing amount of data suggesting that carcinomas of the right and left colon should be considered as different tumor entities. Difference in tumor proliferation rates has been used as a prognostic tool. Ki-67 is a proliferation-associated nuclear and nucleolar protein antigen, which is expressed in all cycling cells, and it is an important marker to determine the degree of tumor malignance and invasion ability. Cyclooxygenase-2 (COX-2) is an important key enzyme required for the synthesis of prostaglandins, with high level seen in many cancers including colon cancer. **Patients and methods** A total of 167 colectomy specimens were reviewed during the period of 1 year. Fifty cases from the originally viewed 167 cases were chosen; 25 cases from the right-side colon and 25 from the left-side colon of comparable stages and grades. Each case was stained immunohistochemically for Ki-67 and COX-2 antibodies. **Results** The results of Ki-67 immunostaining showed that the difference between the right and left cases was significant ( $P < 0.05$ ) in addition to the results of COX-2 immunostaining. We suggest that right and left cancer colon may be two different entities with possible different risk factors and different pathogenesis, and hence each may require different treatment polices as well. **Conclusion** COX-2 expression in right-side tumors more than in left-side tumors may provide a chance for right-side cancers to benefit from COX-2 inhibitor therapy.