

International Conference on
GASTROINTESTINAL CANCER AND THERAPEUTICS

4th World Congress on
DIGESTIVE & METABOLIC DISEASES

26th Annual Congress on
CANCER SCIENCE AND TARGETED THERAPIES

October 29-30, 2018 | San Francisco, USA

Expression of IRE1 β is downregulated in azoxymethane/dextran sulfate sodium-induced mouse colonic tumor

Qiang Gao, Faliang Dai, Lei Gao, Shizhen Dong, Qingxia Xuan, Pan Chen and Yonggang Fan
Beijing Rehabilitation Hospital of Capital Medical University, China

Inflammatory bowel disease (IBD) is a risk factor for the colon cancer. The endoplasmic reticulum (ER) stress is associated with IBD and cancer. We used azoxymethane (AOM) and dextran sulfate sodium (DSS)-induced mouse colonic tumor model to analyze the expressions of ER stress chaperone molecules. C57BL/6 female mice were given an intraperitoneal injection of AOM 1mg/ml (12mg/kg) on day one, a week later drunk 1.0% DSS for 7 days, and then normal drinking water for 14 days. The cycle of 7 day DSS plus 14-day water was repeated for two times. At the end of the study, the tumors were found in the distal colon. IL-6, IL-8, and TNF- α mRNA was significantly higher in mice of tumor group compared with that in mice of the control group; There was no significant difference in the expression of IRE1 α mRNA and protein between the two groups although XBP1s mRNA was increased; the expression levels of IRE1 β and MUC2 mRNA were significantly lower, only 42% and 30% of the control group. IRE1 β and MUC2 protein were mainly expressed in colonic epithelial cells, and their expression was decreased in the tumor group. The downregulation of IRE1 β and MUC2 might reduce the ability to resist inflammation, so as to promote the occurrence and development of the colonic tumor.

Biography

Qiang Gao has completed his PhD from Leiden University, The Netherlands, and postdoctoral studies from Wisconsin University School of Pharmacy, USA. He is a professor of gastroenterology in Beijing Rehabilitation Hospital of Capital Medical University, Beijing, China. He has published more than 30 papers in reputed journals and has been studying on inflammation and tumor of alimentary immunology for a decade more.

gaoq@ccmu.edu.cn

Notes: