

Clinical constellation of the utility of the p87 biomarker for cancer

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The p87 biomarker is recognized by an anti-adenoma murine monoclonal antibody (Mab), tailored for early detection of colorectal neoplasia in colonic effluent. The Mab functions for immuno-blotting, ELISA and immunohistochemistry (IHC). It recognizes an epitope on a 87 kDa 10% N-linked glycoprotein. It is constitutively expressed but at a low level in the human GIT. The cell of origin appears to be the paneth cell, a component of the innate immune system. Expression is increased in normal-appearing colonic mucosa comensurate to risk of colorectal cancer (CRC). It is found in tissues from all colon genetic syndromes and is increased in the stool of patients at increased risk for CRC. It is postulated to be the human analogue of the modifier of min (MOM). In the human, it increases with age but disproportionately increased in younger patients rectal mucosa mirroring the current epidemiologic trend. It can be differentially expressed in the serum of patients with cancer which suggests that it may have diagnostic utility for serum bank samples. It has prognostic capability in IHC for pancreatic cancer (adenocarcinoma and IPMN); gastric adenocarcinoma and CRC. Prospectively, it has been shown to have 52% sensitivity and 91% specificity in lung and 67% with 90% respectively in pancreatic cancer patients, diagnosing patients two years before the cancer was clinically diagnosed. Thus, the p87 biomarker therefore covers a gamut of most common cancers possibly giving most cancer victims a chance at early diagnosis in order to bring cancer therapy to bear at a earlier cancer stage.

Biography

Martin Tobi completed his MB ChB (MD equivalent) from the University of Cape Town Medical School, South Africa, clinically trained in Jerusalem and Chicago, and Post-graduate Training at the NCI, NIH, Bethesda Maryland. He was the Chief of Gastroenterology at the Philadelphia VAMC and Faculty at the University of Pennsylvania Perelman School of Medicine. He currently is at the Saginaw VAMC working as Clinical Professor of Gastroenterology at CMUCOM and has an active laboratory at the Detroit VAMC. He has more than 80 articles in peer-reviewed publications and served on Editorial Boards, organized conferences and participated in study sections.

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