Novel marker of colon cancer

October 23 2008

Colon cancer ranks second of all gastrointestinal malignant tumors, it is one of the leading causes of cancer-related deaths worldwide. Until now, several molecules have been reported to play an important role in gastroenterological tumorigenesis and tumor metastasis, but the molecular mechanisms involved tumor development and progression still remain unclear in colon cancer.

A research article to be published on October 14, 2008 in the *World Journal of Gastroenterology* addresses this question. In this research, by using the combined methods of laser microdissection (LMD), P27-based RNA amplification, and polypeptide, They evaluated differentially expressed genes between early carcinoma and lymph node metastatic patients. Moreover, They further identified four differentially expressed genes in the progression of colon cancer in another group of 15 patients by means of semiquantitative reverse transcribed polymerase chain.

Their result indicated that the five gene expressions were changed in colon carcinoma cells compared with that of controls. Of the five genes, three genes were downregulated and two were upregulated in invasive submucosal colon carcinoma compared with non-invasive cases. The results were confirmed at the level of RNA and gene expression. Five genes were further identified as differentially expressed genes in the majority of cases (> 50%, 25/40) in progression of colon cancer, and their expression patterns of which were similar to tumor suppressor genes or oncogenes. These results not only reveal the differentially expressed genes in progression of colon cancer, but also provide information that may prove useful for identifying novel diagnostic and

therapeutic targets.

Source: World Journal of Gastroenterology