EpCAM and claudins as cancer biomarkers in ovarian and colon cancer

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The expressions of cell adhesion molecules (CAMs) that are located on the cell surface involved in binding with other cells or with the extracellular matrix (ECM) alter depending on the cancer types and stages. Especially, Epithelial Cell Adhesion Molecule (EpCAM) and claudin family members of tight junctions are really important in the cancer progression, invasion, metastasis, angiogenesis and apoptosis resistance to the chemotherapeutic drugs. In our study, we determined expression profile of EpCAM and claudin-3, 4 and 7 in both ovarian and colon cancer cell lines by comparing with the normal epithelium cell lines. Significantly, EpCAM and claudin levels up-regulated in the primary cancer lines (A2780 and Caco-2) compared to the normal epithelial cell lines (OSE and CCD-18Co). Also, OVCAR-3, SKOV-3 and DLD-1 cell lines that were isolated from metastatic regions showed higher EpCAM and claudin expression compared to the primary cancer and normal epithelium cell lines. These results evince that EpCAM and claudin molecules can be used for diagnosis of ovarian and colon cancers.

Biography
Zehra Tavsan is a PhD student of Dokuz Eylul University, Turkey. She is mainly engaged in EpCAM and claudins as cancer biomarkers.

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