

عنوان مقاله:

Important Role of Soluble Epidermal Growth Factor receptor levels in the Patients with Breast Cancer

محل انتشار:

کنفرانس بین المللی پژوهش در مهندسی، علوم و تکنولوژی (سال: 1394)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Amitis Majlesi - MSc, Department of Cell and Molecular Biology, College of Pardis, University of Guilan, Rasht, Iran

Hamid Bakhshi - MSc, Department of Cell and Molecular Biology, College of Pardis, University of Guilan, Rasht, Iran

خلاصه مقاله:

Human EGF is a 1406-Da protein with 65 amino acid residues and three Intra molecular disulfide bonds. EGF acts by binding with high affinity to epidermal growth factor receptor (EGFR) on the cell surface and stimulating the intrinsic protein-tyrosine kinase activity of the receptor. The tyrosine kinase activity, in turn, initiates a signal transduction cascade that results in a variety of biochemical changes within the cells, increased glycolysis and protein synthesis, and increases in the expression of certain genes including the gene for EGFR - that ultimately lead to DNA synthesis and cell proliferation. Many proteins are proteolytically released from the surface by a process known as ectodomain shedding. A variety of integral membrane protein, including EGFR can be released from the lipid bilayer by proteolysis to form soluble, truncated proteins. In 2012, it is estimated that there were more than 2.8 million women living in the US with a history of invasive breast cancer, and an additional 221,924 women will be diagnosed. Growth factors including epidermal growth factor plays important role in the development of breast cancer. The aim of this study was to determine the total protein concentration (TPC) and levels of soluble EGFR (sEGFR) in the serum of patients with breast cancer by enzyme linked immune sorbent assay (ELISA). No significant change in TPC has been seen in the serum of patients with breast cancer as compared to normal controls. However, it was also shown that the concentration of serum sEGFR in the patients with breast cancer is higher than in normal control. The data from this study indicate that sEGFR is a constant component of human serum and high levels of serum sEGFR may be partly related to the pathophysiology of breast cancer

کلمات کلیدی:

Soluble epidermal growth factor receptor; concentration; serum; breast cancer

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/398441>

