

## Determination of Alpha-Protein, Carcino-embryonic antigen and c-reactive protein in patients with malignant liver pathology

Petrit Gecaj  
Biochemist

### Abstract

In this paper there are presented values of AFP, CEA, CRP in malignant liver pathologies. Alpha-Fetoprotein AFP is an oncofetal protein. The pathological increase in AFP is increased in malignant liver pathologies, testicular cancer and ovarian cancer. A significant increase in AFP is noted in hepatocellular carcinoma, with AFP up to 3000 ng / ml. AFP is a useful tumor marker in the diagnosis and monitoring of hepatocellular carcinoma treatment. AFP levels in blood sera above 3000 ng / ml attest to the presence of hepatocellular carcinoma. In laboratory practice AFP is measured by analysis of immunoassay techniques. In 20 patients diagnosed with liver cancer, AFP was measured in blood serum using the ELISA analytical method. Measurements were performed on the ELISA Human READER HS microfotometer.

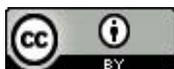
Study data indicate that in malignant liver pathologies, there is a statistically significant increase in the concentration of AFP in blood serum. ( $P < 0.001$ ).

Carcinoembryonic antigen (CEA) is a glycoprotein with molecular weight 180 KD. This glycoprotein is synthesized during normal fetal development in the gastrointestinal and pancreas tracts. It is then secreted into the circulatory system. CEA is widely used as a marker of gastrointestinal cancer. Other malignant pathologies can cause high levels of CEA. Among these malignant pathologies are liver cancer. CEA concentration was measured in the above 20 patients, in whom AFP was also determined. Determination of CEA was performed by immunofluorescence method on nitro cellulose supernatant. Measurements were made with microfluorometers equipped with parametric microchips. It results that in malignant liver pathologies the concentration of CEA in blood serum increases statistically significantly ( $P < 0.001$ ).

C-Reactive Protein (CRP) is a protein that is synthesized in the liver during the acute phase of acute processes. In many cases, malignant pathologies are associated with inflammatory phenomena. In cases where malignant pathology is associated with inflammatory processes, the determination of CRP in blood serum is useful. To measure CRP concentration in blood serum, in 20 patients with malignant liver pathology we selected the immunoturbidimetric method. Results show that in malignant liver pathologies the concentration of CRP in blood serum is also significantly ( $P < 0.001$ ) increased, which proves the presence of necrosis and inflammation in these pathologies.

**Keywords:** Alpha-Protein, Carcino-embryonic antigen, C-reactive protein, malignant liver pathology.

Full Text: [PDF](#)



This work is licensed under [Creative Commons Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/).

Academic Journal of Business, Administration, Law and Social Sciences ISSN 2410-3918 (print)

ISSN 2410-8693 (online)

Copyright © IIPCCCL-International Institute for Private, Commercial and Competition law