Osteopontin as a potential biomarker for hepatocellular carcinoma

Marwa Mahmoud Abdel Aziz, Mona Salem Khalil, Sahar Abd El Atty Sharaf, Maisa Elraziky,
Cairo University
Giza, Egypt


Abstract

Background: Hepatocellular carcinoma (HCC) is one of the most common malignancies worldwide and it is one of the major causes of death. Markers of HCC become helpful in screening, diagnosis and follow up of cases. Osteopontin (OPN) is a glycoprotein secreted by (e.g. osteoblasts, osteoclasts, activated macrophages and T cells) it is both a cytokine, found in all body fluids, and a cell adhesion protein, found in mineralized tissues. It is overexpressed in a variety of human tumors, including carcinomas of stomach, breast, prostate, lung, colon, and liver. Plasma level of osteopontin may be a biomarker for HCC. Aim of the work: The aim of this study was to verify the possibility of using the plasma Osteopontin level as a biomarker for hepatocellular carcinoma. Patients and methods: In total, 60 patients (30 with HCC on top of HCV, 30 patients with HCV and 10 control subjects) were included in the study. Osteopontin level was measured in the plasma of the studied subjects by ELISA, serum alpha fetoprotein level was also measured by EIA. Results: Osteopontin levels were significantly elevated in patients with HCC and in HCV patients in comparison to control group, there was significant correlation between OPN and AFP levels.

Keywords

OPN, AFP, HCC, Tumor marker,