

**A CASE THAT UNDERLIES IMPORTANCE OF NOT USING TUMOR MARKERS AS SCREENING TEST**

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**Introduction - Purpose :** Tumor markers can sometimes increase as they are produced by cancer or by other cells of the body in response to malign or noncancerous conditions. Most tumor markers are made by normal cells as well as by cancer cells; however, they are produced at much higher levels in cancerous conditions. However they can also increase in benign conditions in addition to malign ones. (1) Tumor markers should be used to detect response to treatment and relapse in a cured patient. They should not be used as screening tests because of their lower specificity and sensitivity.

**Findings :** During check-up of a 29-year-old female patient, who had no complaints before, serum CA 19-9 values has been found to be high (182.37 U/mL. Normal range is 0-33 U/mL). CA 125 and CEA was within normal range. Then USG showed multiple nodules, which are resembling metastases, have been observed on the liver and pancreas. In another hospital, the patient was told that she had cancer. This had some huge impact on patient's psychiatric health. The patient which was observed major depression-like symptoms in the patient admitted to our hospital with primary unknown cancer diagnosis. Upper and lower abdominal computed tomography was done. They revealed multiple cysts on the left lobe of the liver, the biggest one's diameter was 3.8 cm and it was on the left lobe. Pancreas size was normal. Spleen and both adrenal glands were normal also. On both kidneys there were basic cysts, biggest one was at left kidney and its diameter was 4.8 cm. There were no paraaortic or parailiac lymphadenopathy. Uterus size was also normal. At right ovary there was 2.3 mm diametered and at left ovary 3.6 cm diametered cyst. No pathology was observed at bowel segments nor at mesentery. Furthermore, colonoscopy and esophago-gastro-duodenoscopy were performed. These findings were normal except antral gastritis. In summary, we think that the reason of increase on serum CA 19-9 level associated with multiple liver cysts.

**Discussion :** Guidelines from the American Society of Clinical Oncology discourage the usage of CA 19-9 as a screening test for cancer. The reason is that the test may be false negative in many cases, or abnormally elevated in people who have no cancer at all, which is false positive. [2] Some diseases of the hepatobiliary system, pneumonia, pleural effusion, renal failure and SLE can be given as example for benign conditions that increase CA 19-9 levels, which in turn would cause false positive results when used as a screening test for cancer. In this case of ours, elevated CA 19-9 levels were accompanying widespread liver cysts. It is safe to say that usage of these markers as screening tests is wrong and such behaviour should be avoided.

**Keywords:** Tumor markers; CA 19-9; Multiple cysts; Screening