Changes in tumor nekrosis factor alpha and interleukin 6 levels in patients with obstructive jaundice due to pancreatobiliary cancer who underwent biliary drainage

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Abstrak

Obstructive: jaundice represents the most common complication of biliary tract Malignancy. Obstructive jaundice causes releases of proinflammatory cytokine. There has been controversy about effect of biliary drainage on the change in proinflammatory cytokine level in pancreatobiliary cancer patients. The present study was designed to determine levels of tumor necrosis factor alpha (TNF-alfa) and interleukin 6 (IL-6) in preprocedure of either endoscopic retrograde cholangio pancreatography (ERCP) or percutaneous transhepatic biliary drainage (PTBD) and postprocedure of them in obstructive jaundice patient caused by pancreatobiliary cancer.

Method: The study method was before-and-after case study design with consecutive sampling. Blood was collected five days prior to either endoscopic retrograde cholangio pancreatography (ERCP) procedure or percutaneus transhepatic biliary drainage (PTBD) procedure and five days after either of them. Enzyme linked immunosorbed assay (ELISA) was used to determine TNF-alfa and IL-6.

Results: Forty subjects were included in this study which consisted of 22 men and 18 women. The age was 55.3 (SD 13.7) years old. According to the results of imaging and endoscopy procedure, twenty-two people were diagnosed cholangicarcinoma, ten people were diagnosed ampulla vateri and eigth people were diagnosed pancreatic tumor. In preprocedure, the TNF-alfa concentration was 4.81 (SD 2.91) pg/mL, the IL-6 concentration was 7.79 (SD 1.57) pg/mL and the bilirubin concentration was 15.5 (SD 6,9) mg%. In postprocedure, the TNF-alfa concentration was 8.05 (SD 6.7) pg/mL, there was a significant increase in TNF-alfa concentration ($p = 0.02$). However, IL-6 concentration was 7.75 (SD 1.76) pg/mL, there was not any significant chance in IL-6 concentration ($p = 0.52$). The bilirubin concentration was 11.3 (SD 6,5) mg%.

Conclusion: There was a significant increase in mean concentration value of TNF-alfa after biliary drainage procedure. On the other hand there was not any significant decrease in the mean concentration value of IL-6 after biliary drainage procedure