

#209

USEFULNESS OF ALPHA-FETOPROTEIN AND PIVKA-II DETECTION IN THE DIAGNOSIS OF HEPATOCELLULAR CARCINOMA IN AT-RISK POPULATION

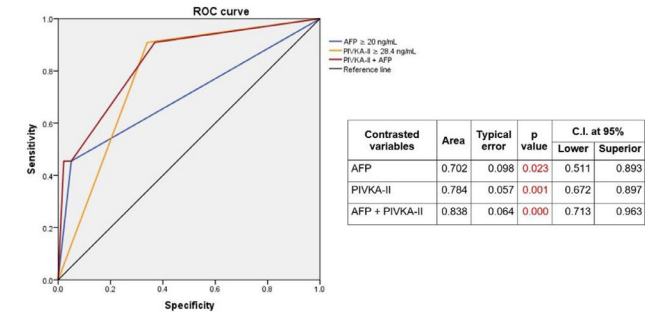
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Introduction and Objectives: Despite existing surveillance methods, the diagnosis of hepatocellular carcinoma (HCC) in at-risk populations often occurs in advanced stages of the disease and carries a worse prognosis. AFP and PIVKA-II are two of the tumor biomarkers that have received the most attention for monitoring at-risk patients. To determine the value of the isolated and combined detection of PIVKA-II and alpha-fetoprotein in the diagnosis of hepatocellular carcinoma in at-risk population. **Materials and Methods:** A cross-sectional descriptive study with an analytical component was conducted across three tertiary centers between July 2024 and April 2025. A total of 291 patients at risk for HCC were included; 11 were diagnosed with HCC. Independent variables assessed included age, sex, serum alpha-fetoprotein (AFP) and PIVKA-II levels. HCC diagnosis served as the dependent variable. The

ROC curve was calculated to determinate the diagnostic usefulness of the isolated AFP, PIVKA-II and the combination of both biomarkers. **Results:** The mean age was 62 ± 10.3 years, with a predominance of patients aged ≤62. The most common risk group was liver cirrhosis (91.1%), with a slight predominance of females. The area under the curve was similar for AFP and PIVKA-II, confirming the good discriminatory power of both tests, but the combination of these tests was discretely greater than the biomarkers separately. **Conclusions:** The diagnostic performance of both biomarkers (AFP and PIVKA-II) was similar during the evaluation of patients at risk of developing HCC, but the combination of both showed better discriminatory power between patients affected or not by this neoplasia. **Conflict of interest:** None

ROC curve for alpha-fetoprotein (AFP), PIVKA-II and both biomarkers in the diagnosis of HCC in at-risk patients.



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