

## **Apelin – possible diagnostic marker of chronic pancreatitis?**

*Larysa Zhuravlyova, Yuliia Shekhovtsova,*

Kharkov national medical university, Ukraine

**Background:** Apelin is an adipocytokine, which produced by activated pancreatic stellate cells in the pancreas during chronic pancreatitis (CP).

**Aims:** The aim of this study was to evaluate the apelin serum concentration in patients with CP in order to determinate it is possible diagnostic value.

**Patients & methods:** The study was performed on 20 patients (10 males; mean aged  $51.6 \pm 2.52$ ) with CP; control group (n=20). The survey plan included: elastase -1 in feces,  $\alpha$ -amilase, serum level of apelin, C-reactive protein.

**Results:** We revealed 1.5-fold increase in apelin serum level in CP patients ( $259.6 \pm 13.5$ ) which was significant higher than in control ( $171.0 \pm 8.2$ ) ( $p < 0.05$ ). There was no correlation between apelin level and CP stage. We found 2.5-fold increase in  $\alpha$ -amilase serum level in CP patients ( $38.46 \pm 4.42$ ) which was significant higher than in control ( $15.45 \pm 0.68$ ) ( $p < 0.05$ ). Level of fecal elastase-1 in CP patients was significantly lower compare to control ( $157.1 \pm 15.7$  vs  $204.9 \pm 0.99$ ,  $p < 0.05$ ). Level of C-reactive protein in CP patients was significantly higher compared to control ( $3.05 \pm 0.99$  vs  $0.25 \pm 0.18$ ). There were correlation between elastase-1 and C-reactive protein ( $r = -0.75$ ,  $p < 0.05$ ), elastase-1 and apelin ( $r = -0.78$ ,  $p < 0.05$ ), C-reactive protein and apelin ( $r = 0.82$ ,  $p < 0.05$ ).

**Conclusion:** The results suggest the possible use of serum apelin in CP diagnosis. Significant correlation between serum apelin and the indicators of functional status of pancreas, may indicate on the role of apelin as a diagnostic marker of CP.