

## **P-541 - MORNING AND AFTERNOON LEVELS OF SERUM CORTISOL IN PATIENTS WITH FIRST MYOCARDIAL INFARCTION AND DEPRESSION**

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**Introduction:** Relationship between depression and myocardial infarction (MI) is established. Depression post MI is frequent and it worsens the course of CAD causing higher mortality.

One of suggested mechanisms connecting depression and MI is disturbed function of hypothalamic-pituitary-adrenal axis (HPA).

**Objective:** To verify if depression influences cortisol levels in patients with depression after the MI.

**Aims:** Analyzing morning and afternoon levels of cortisol on the 3rd and 5th day after MI in three subgroups:

1-patients with major or minor depression recognized immediately after the MI;

2- patients who developed depression during six months observation;

3- patients without depression.

**Methods:** 44 patients of Cardiology Department of Medical University in Gdansk were included. Patients were 30 to 65, had first MI with ST elevation, EF was at least 40%, had no significant somatic diseases.

The diagnosis of major depressive disorder (MDD) or minor depressive disorder (mdd) was set based on the DSM-IV-TR criteria at three time-points: on the 3rd day of the MI, after 3 and 6 months.

**Results:** Obtained results confirm diurnal changes in cortisol levels in all three subgroups. In subgroups with depression differences are less evident compared to the subgroup without depression but with no statistical significance.

In subgroups with depression, on the 5th day after the MI, morning levels of cortisol were significantly higher. Interestingly morning levels of cortisol in those subgroups on the 3rd day after the MI were lower compared to patients without depression.

**Conclusion:** Presence of post MI depression probably influences functioning of HPA axis.