

MAY CHRONIC OBSTRUCTIVE PULMONARY DISEASE IMPACT PLATELET COUNT? PILOT STUDY.

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Introduction: In 2017, it has been proven on a murine model, that platelets maturation occurs partially in lungs. If this was present in humans it could suggest that chronic lung diseases can seriously affect platelet maturation and therefore platelet count. The aim of study was to check whether there are differences in platelet count in COPD patients' when compared to well-matched control group.

Materials and methods: The patients were recruited from people hospitalized in University Clinical Center in Katowice. The study group included 44 patients aged 66.5 ± 5.5 years with diagnosed COPD (stage II-IV). The control group included 48 patients age (62.2 ± 6.6 years) and sex matched ($p > 0.05$). There were no differences among groups in terms of accepted risk factors that might have affected platelet count.

Results: There were no differences in platelet count (PLT) in the study 231 ± 80 and control group 223 ± 63 respectively ($p = 0.61$), however the number of platelets showed a significant correlation with hemoglobin (HB) ($r = -0.57$; $p < 0.001$), hematocrit (HCT) ($r = -0.40$; $p = 0.006$) and red cell count (RDW) ($r = -0.51$; $p < 0.001$) but only in the study group. The statistical analysis showed significant higher values of HB, HCT, RDW and white blood cell (WBC) count in the study group.

Conclusion: The analysis of our study cannot support the hypothesis of the impact of COPD on platelet count. Probably this assumption should be checked in more severe patients, such as the ones with respiratory failure and poliglobulia.