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DIFFERENCES IN RED BLOOD CELLS DISTRIBUTION (RDW) AT PATIENTS WITH ACS

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BACKGROUND-AIM

Considering the fact that the formation of the atheromatous plaque entails a series of changes at the vascular level, monitoring the number, shape and representation of blood elements has proven to be an important evidence for the further treatment of patients with ACS. This statement is due the evidence that RDW can provide information for higher heterogeneity in cell size (anisocytosis) as a result of maturation or degradation of RBC. Several studies have indicated the relationship of the relative distribution of erythrocytes with deterioration and mortality in such patients.

METHODS

Our study, among others, examined the percentage of erythrocyte variation or RDW in patients with symptoms and confirmed AMI and AP/NSAP admitted in the EU with aim to reveal or add more laboratory results for prognosis at patients with ACS. Overall, 95 patients with AMI of which 7 with fatal outcome, 42 patients with AP and 22 with NSAP were selected for statistical processing for the level of RDW. Measurements were made according to the IFCC recommendation for laboratory tests.

RESULTS

The results show that in patients with a confirmed AMI that ends with fatal outcome, average value for RDW was 13.3 %, except one patient, female, with RDW value 25.1 % that is not included in statistics. Mean value of the RDW of the rest of the patients diagnosed with AMI was 14.6%. As for patients with stable and unstable angina pectoris, we found a difference in favor of patients with unstable AP 15.6% vs. stable AP 14.2%. RDW percentage was higher at the female patients with NSAP, 16.6 % vs male with mean of 15,5% RDW.

CONCLUSIONS

Our results and assumptions, prompted and supported by other significant data indicate the importance of determining this parameter in addition to the treatment of patients, especially at female patients with NSAP, due to already known pathology at this stage, increased risk factors and possible outcomes.