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P020
RDW – a new diagnostic and activity marker for inflammatory bowel disease

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Anaemia is a common complication in patients with inflammatory bowel diseases (IBD-Crohn’s disease [CD], ulcerative colitis [UC]) and is mainly caused by iron malabsorption due to the chronic inflammation and intestinal bleeding. Red blood cell distribution width (RDW) provides a quantitative measure of the size variability within the red blood cell population and its value may be increased even before iron deficiency becomes obvious. Recent data suggest that RDW could be a reliable marker in differentiating between the two types of IBD.

Aim: The aim of our study was to retrospectively evaluate whether RDW really helps to differentiate the two forms of IBD in daily clinical practice, whether a correlation between RDW and the activity of IBD is demonstrable and to determine the sensitivity of RDW in the diagnosis of IBD comparing with patients suffering from irritable bowel syndrome (IBS).

Methods: The clinical records of 176 IBD patients and were reviewed; 92 patients with CD, 84 with UC. RDW values measured in an active and in an inactive period of the diseases were assessed. Disease activity was estimated by serum iron level, C-reactive protein (CRP) level, erythrocyte sedimentation rate (ESR) and Crohn’s disease activity index (CDAI) or Clinical Activity Index (CAI). The relations between these parameters and RDW and between the RDW values in the two patient groups both in the active and in the inactive period of the diseases were statistically analyzed. Sensitivity and specificity of RDW in comparison with IBD serological markers were assessed in another 179 IBD patients. RDW values of 26 IBS patients and 176 IBD patients participated in the first part of the study were statistically compared.

Results: RDW value was increased in 53.2% of the patients with active CD vs. 36.8% of the patients with inactive UC, representing a statistically significant difference (14.3 vs. 13.8, P = 0.05). Mean RDW was significantly increased in the active form of both CD and UC compared to the normal values of RDW. RDW values were significantly increased in both active and inactive CD and UC comparing to patients with IBS (p < 0.001 in active and inactive CD, p < 0.0018 in inactive UC, p < 0.002 in active UC). Elevated RDW values were detected in only 8.3% of IBS patients. ROC analysis of RDW values showed 92% specificity cutpoint at a RDW level of 13.4% in both CD and UC independently of the disease activity.

Conclusion: RDW did not prove to be an effective marker in differentiating CD and UC in the active period of the diseases. Furthermore, it could be a useful and inexpensive activity marker, and may help the differential diagnosis between IBD and IBS.

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Microalbuminuria in inflammatory bowel disease.

Prevalence and significance

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Introduction: conflicting data exist about microalbuminuria in inflammatory bowel diseases (IBD). It is still unclear whether the occurrence of proteinuria in IBD patients is an extraintestinal manifestation of the disease, an early indicator of amyloidosis complication, an IBD activity marker or an adverse effect of medication.

Aims: were to evaluate the prevalence of microalbuminuria in IBD patients, to determine its significance, and essentially discover if microalbuminuria accurately reflect the disease activity.

Patients and Methods: a total 86 IBD patients were prospectively enrolled; 62 with Crohn’s disease (CD) and 24 with ulcerative colitis (UC). Disease activity was assessed by Crohn’s disease activity index (CDAI) or Lichtiger index. Urine was collected over 24 h and microalbuminuria was measured. It was considered as significant when it was superior to 30 mg/24 h. CRP and ESR were also measured as indicators of inflammation. Endoscopy was realised in only patients with clinical and/or biological active disease. Elevated microalbuminuria was systematically controlled. It was controlled 3 months after remission in active IBD.

The criteria of exclusion were: renal disease, history of disease affecting the glomerular function, essentially diabetes and arterial hypertension, urinary tract infection, and treatment with nephrotoxic drugs, like 5-ASA and cyclosporine.

Results: eighty-six patients were included (45 women, mean age 32.4 years). Fifty-one patients were in remission and 35 had active IBD. Elevated microalbuminuria was correlated with only disease activity. Neither the type of the IBD nor its location or duration affected the microalbuminuria secretion. In fact, it was found that patients with active IBD had higher mean concentration of microalbuminuria compared with those patients in remission (24.3 mg/24 h vs 11.2 mg/24 h p < 0.05). All the seven patients who had significant elevation of microalbuminuria had an active IBD (20% active IBD vs 0% inactive IBD, p < 0.001). The microalbuminuria concentration was also correlated with CRP level (r = 0.6, p < 0.03) and index of activity (r = 0.75, p < 0.001). The elevated microalbuminuria, controlled 3 months after remission, was normal in 6 cases (85%). In one patient elevated microalbuminuria persisted after remission,