

# Identification of clinical and simple laboratory variables predicting responsible gastrointestinal lesions in patients with iron deficiency anemia

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### **Abstarc :**

Iron deficiency anemia (IDA) is a frequent disorder. Also, it may be a sign of underlying serious diseases. Iron deficiency points to an occult or frank bleeding lesion when occurred in men or postmenopausal women. In this study, we aimed to evaluate the diagnostic yield of endoscopy in patients with IDA and to define predictive factors of gastrointestinal (GI) lesions causing IDA. Ninety-one patients (77 women, 14 men; mean age: 43 years) who were decided to have esophago-duodenoscopy and/or colonoscopy for iron deficiency anemia were interviewed and responded to a questionnaire that included clinical and biochemical variables. The endoscopic findings were recorded as GI lesions causing IDA or not causing IDA. Endoscopy revealed a source of IDA in 18.6 % of cases. The risk factors for finding GI lesions causing IDA were as follows: male gender ( $p= 0.004$ ), advanced age ( $> 50$  years) ( $p= 0.010$ ), weight loss (over 20% of total body weight lost in last 6 month) ( $p= 0.020$ ), chronic diarrhea ( $p= 0.006$ ), change of bowel habits ( $p= 0.043$ ), epigastric tenderness ( $p= 0.037$ ), raised carcinoembryonic antigen (CEA) level (normal range: 0-7 ng/mL) ( $p= 0.039$ ),  $< 10$  gr/dl hemoglobin (Hb) level ( $p=0.054$ ). None of these risk factors had been present in 21 (23%) women younger than 51 years. In this group, no patient had any GI lesion likely to cause IDA (negative predictive value= 100%). In multivariate analysis, advanced age ( $p=0.017$ ), male gender ( $p< 0.01$ ) and weight lost ( $p=0.012$ ) found that associated with GI lesions in all patients. It may be an appropriate clinical approach to consider these risk factors when deciding for gastrointestinal endoscopic evaluation in iron deficiency anemia.

### **Key Word :**

Iron deficiency anemia, gastrointestinal lesions, predictive risk factors, endoscopic investigation