

Fecal Elastase 1 Determination in Chronic Pancreatitis

Gullo, L., Ventrucchi, M., Tomassetti, P., Migliori, M., Pezzilli R.

Department of Internal Medicine and Gastroenterology, University of Bologna, Sant'Orsola Hospital, Bologna Italy

This study assessed the diagnostic accuracy of fecal elastase 1 in chronic pancreatitis. Fifty-three healthy subjects, 44 patients with chronic pancreatitis (22 severe, 13 moderate, and 9 mild), and 43 patients with nonpancreatic digestive disease were studied. Elastase 1 concentration was determined on a small sample of feces using a commercially available kit. Fecal chymotrypsin was also measured. With a cutoff level of 190 µg/g, all healthy controls except one (98,1%), and the majority of patients with nonpancreatic digestive diseases (40 of 43; 93.0%) had elastase values above this limit. Among the 44 patients with chronic pancreatitis, 34 (77.3%) had pathological values: all 22 (100%) with severe disease, 10 of 13 (76.9%) with moderate disease and 2 of 9 (22.2%) with mild disease. Chymotrypsin values were pathological in 25 of 44 (56.8%) patients with chronic pancreatitis; 17 of 22 (77.2%) with severe pancreatitis, 7 of 13 (53.8%) with moderate pancreatitis, and 1 of 9 (11.1%) with mild disease. The specificity was 95.8% for elastase 1 and 80.4% for chymotrypsin. The difference both in sensitivity and specificity of the two enzymes was statistically significant ($P < 0.05$). Fecal elastase 1 has a high sensitivity, superior to that of fecal chymotrypsin, in the diagnosis of chronic pancreatitis. For its simplicity and rapidity, it could represent the tubeless test of choice in chronic pancreatitis.

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