Cytomegalovirus infection with gastric ulcers in Ménétrier's disease and hypergammaglobulinemia

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To the Editor,

Canan et al.[1] published a first report of Ménétrier's disease associated with cytomegalovirus (CMV) infection and multiple gastric ulcers. Their patient had interesting clinical and laboratory features. We recently diagnosed Ménétrier's disease in a six-year-old male who presented with vague abdominal symptoms and sudden onset anasarca type edema. Laboratory findings revealed severe hypoproteinemia in the absence of proteinuria and hypogammaglobulinemia. Upper gastrointestinal endoscopy demonstrated hypertrophic rugal folds macroscopically and tortuous and dilated glands microscopically. CMV in both serum and gastric tissue was positive by polymerase chain reaction. Our case demonstrated characteristic features of Ménétrier's disease. However, the case presented by Canan et al.[1] displayed somewhat different features. Indeed, some of these features deserve special attention and should be reviewed carefully.

Firstly, the authors performed upper gastrointestinal endoscopy with the presumptive diagnosis of protein losing enteropathy since no proteinuria was detected. Before the endoscopic analysis, however, fecal protein loss might have been shown easily and noninvasively by the measurement of fecal alpha-1 antitrypsin level, which is not normally excreted from feces[2].

Secondly, their patient had hypoproteinemia (albumin 3.1 g/dl and total protein 4.3 g/dl, respectively), which is characteristic for Ménétrier's disease. Although the expected finding was hypogammaglobulinemia, they noted hypergammaglobulinemia (IgG: 2210 mg/dl, IgA 220 mg/dl, and IgM 300 mg/dl, respectively). Indeed, protein level other than albumin (total protein minus albumin) should not exceed 1.2 g/dl. Hypergammaglobulinemia or hypoproteinemia therefore requires further explanation. If the blood samples for gammaglobulin and protein analysis were taken on two different occasions, this discrepancy might be explained.

Thirdly, multiple gastric ulcers were proposed to be related with CMV infection since their patient did not have other risk factors for ulcer formation such as concurrent steroid use, higher NSAID (nonsteroidal anti inflammatory drug) dose, multiple NSAID use, etc. The authors were less inclined to consider NSAID-induced gastric ulcer since the patient ingested only two doses of naproxen. Indeed, the gastric ulcers are probably related with CMV infection. However, it is well known that even a single low dose of NSAID may be enough to cause gastric ulcer in susceptible individuals[3].

In summary, fecal alpha-1 antitrypsin measurement is an easy and noninvasive way to demonstrate protein loss from the gastrointestinal tract. Hypogammaglobulinemia is an expected finding in case of hypoproteinemia, which is observed in due course of Ménétrier's disease. Finally, NSAIDs per se are drugs that may cause hemorrhagic gastritis and ulcer formation even with a single dose.

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