

Acute pancreatitis secondary to topical and oral treatment with mesalamine in a patient with ulcerative colitis

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ABSTRACT

Introduction: Derivatives of 5-aminosalicylic acid (5-ASA) as Claversal® used for the treatment of inflammatory bowel disease may induce acute pancreatitis both orally as topically. Mesalazine is the only treatment used in our environment within the compounds of 5-ASA, due to other molecules not being available. It is available for both oral and topical, being topical form highly relevant considering that its compounds are rapidly absorbed once acetylated, resulting in inactive metabolites. Nowadays the mechanism or pathway by which it is produced is not really clear, neither the relationship with the intervals between exposure of treatment nor the onset of clinical symptoms, due to some cases in which there was no relationship with the duration, which was our case. **Case Report:** We report one case of 5-ASA induced pancreatitis. A 35-year-old male whose first episode was secondary to oral form with subsequent recurrence after beginning with topical form. **Conclusion:** We would like to point out that after an episode of pancreatitis due to oral mesalamine, topical mesalamine should not be prescribed.

Keywords: Mesalamine, inflammatory bowel disease, pancreatitis, topical treatment

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INTRODUCTION

Oral and topical formulations of 5-aminosalicylic (5-ASA) are known as the treatment of choice according to the guidelines for mild to moderate ulcerative colitis [1]. Now 5-ASA are the first line treatment in this group of patients, but previously, the sulfasalazine had been the traditional treatment, reducing their use, due to having more side effects, most of them attributed to inactive component, the sulfapyridine. In literature has been published that approximately 10–45% of patients are unable to tolerate the medication due to adverse reactions [2]. Therefore, products of aminosalicylates have been developed independent of this part, such as topical and oral forms of 5-aminosalicylate acid (5-ASA). They have demonstrated greater safety profile due to having few secondary adverse reactions.

There have been described few secondary adverse reactions to oral form (Claversal®) as acute pancreatitis [3], hepatotoxicity [4], renal toxicity [5], myocarditis [6] and neuropathy [7], happening less frequently secondary to topical component, because of its limited systemic

absorption. Moreover, this complication typically appears within the first days or weeks after initiation of therapy, and only one case has been published after long-term 5-ASA acid therapy [8].

We report a case of acute pancreatitis caused first by 5-ASA oral and repeated by 5-ASA suppositories in a patient with ulcerative colitis.

CASE REPORT

A 35-year-old male was hospitalized with severe mild-epigastric pain from the day before. He was diagnosed with Ulcerative colitis, confirmed by colonoscopy and biopsy two years ago (Figure 1). The dose of mesalamine was raised to 3 g per day after a new flare four weeks earlier. Physical examination was normal except for mild tenderness in the epigastrium. The patient had no fever and jaundice. Laboratory examinations were normal except increased serum lipase of 738U/L. Ultrasonography demonstrated no dilatation of intrahepatic ducts or common bile duct, no stones, no necrosis or fluid accumulation but pancreatic enlargement was present (Figure 2). Different etiologies like biliary, alcoholic and hyperlipidemia were ruled out through blood tests, medical record and imaging (X-ray radiography, ultrasonography). Finally, drug-induced pancreatitis was the diagnosis and withdrawal of oral mesalamine was performed.

Due to the benign course the patient did not follow a maintenance treatment. Two years later, he had a new flare with rectal bleeding, and topical suppositories of mesalamine were prescribed. Two weeks later, he was hospitalized for abdominal pain with serum amylase of 231 U/L and serum lipase of 1256 U/L. During hospitalization other etiological factors of pancreatitis were ruled out. Conservative measures and mesalamine withdrawal resulted in complete recovery. Clinical remission of Ulcerative colitis was obtained by topical steroid administration. After the last episode, the patient has not received mesalamine again and he has not resubmitted symptoms related to acute pancreatitis and it is without maintenance treatment, but only topical steroids during flares.

DISCUSSION

Oral, topical or combined mesalamine is the recommended treatment in mild to moderate Ulcerative colitis, due to its high efficacy and safety profile [1]. 5-ASA is usually well tolerated, but various side effects have been described secondary to oral administration including skin, hematological, hepatic, cardiac, pulmonary, digestive, and renal disorders [3–7]. Other drugs used in IBD therapy may induce pancreatitis like steroids [9], sulfasalazine [10], 6-mercaptopurine [10, 11], and metronidazole [9]. Reports on the same

complication after rectal administration have been very rare [12]. There are only two publications where the same complication after rectal administration in an adult with ulcerative colitis, due to its limited systemic absorption are described [12, 13]. Ruderman noted minimal adverse effects of topical and oral 5-ASA therapy in IBD and concluded that optimal drug dosage, duration of therapy, and appropriate dosing intervals had yet to be defined [14]. In pharmacokinetic studies, the determined 5-ASA absorption postoperative was approximately 33% [15] and rectal absorption was 10–35% of the doses given [13]. Other studies have determined the relationship with the intervals between exposure to treatment and the onset of clinical, between two days and two weeks [15], but there are other studies in which there is no relationship with the time intervals. [8]. In those who have developed a pancreatitis secondary to oral mesalamine [9] in case of a new flare; topical mesalamine could be an option instead of having to use more aggressive drugs like steroids. The



Figure 1: Extent of Ulcerative colitis according the Montréal classification (E1S1)



Figure 2: Ultrasonography of acute pancreatitis.

evidence of the possibility of a new episode of pancreatitis due to topical treatments is really scarce and reports on the same complication after rectal administration have been very rare [13]. In present case, autoimmune pancreatitis was discarded because the patient improved after mesalamine withdrawal and did not need more steroid systemic treatment in the following years.

CONCLUSION

We must not forget that both the pharmacokinetics of the drug as a possible hypersensitivity reaction to them, any drug nowadays is not totally harmless. With this clinical case we would like to point out that after a pancreatitis due to oral mesalamine, topical mesalamine should not be prescribed.

Author Contributions

Laura Uribarri-Gonzalez – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Manuel Barreiro-de Acosta – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

J. Enrique Dominguez-Muñoz – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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REFERENCES

1. Dignass A, Lindsay JO, Sturm A, et al. Second European evidence-based consensus on the diagnosis and management of ulcerative colitis part 2: current management. *J Crohns Colitis* 2012 Dec;6(10):991–1030.

2. Das KM, Eastwood MA, McManus JP, Sircus W. Adverse reactions during salicylazosulfapyridine therapy and the relation with drug metabolism and acetylator phenotype. *N Engl J Med* 1973 Sep 6;289(10):491–5.
3. Adachi E, Okazaki K, Matsushima Y, et al. Acute pancreatitis secondary to 5-aminosalicylic acid therapy in a patient with ulcerative colitis. *Int J Pancreatol* 1999 Jun;25(3):217–21.
4. Barroso N, Leo E, Guil A, et al. Non-immunoallergic hepatotoxicity due to mesalazine. [Article in Spanish]. *Gastroenterol Hepatol* 1999 Apr;22(4):176–9.
5. Brouillard M, Gheerbrant JD, Gheysens Y, et al. Chronic interstitial nephritis and mesalazine: 3 new cases?. [Article in French]. *Gastroenterol Clin Biol* 1998 Aug-Sep;22(8-9):724–6.
6. Baker WL, Saulsberry WJ, Elliott K, Parker MW. Cardiac MRI-confirmed mesalamine-induced myocarditis. *BMJ Case Rep* 2015 Sep 4;2015. pii: bcr2015210689.
7. Woodward DK. Peripheral neuropathy and mesalazine. *BMJ* 1989 Nov 11;299(6709):1224.
8. Ouakaa-Kchaou A, Gargouri D, Kochlef A, et al. Acute pancreatitis secondary to long-term 5-aminosalicylic acid therapy in a patient with ulcerative colitis: a case-report. *Tunis Med* 2014 Jun;92(6):423.
9. Mallory A, Kern F Jr. Drug-induced pancreatitis: a critical review. *Gastroenterology* 1980 Apr;78(4):813–20.
10. Son CN, Lee HL, Joo YW, et al. A case of acute pancreatitis induced by multiple drugs in a patient with ulcerative colitis. [Article in Korean]. *Korean J Gastroenterol* 2008 Sep;52(3):192–5.
11. Bank L, Wright JP. 6-Mercaptopurine-related pancreatitis in 2 patients with inflammatory bowel disease. *Dig Dis Sci* 1984 Apr;29(4):357–9.
12. Kim KH, Kim TN, Jang BI. A case of acute pancreatitis caused by 5-aminosalicylic acid suppositories in a patient with ulcerative colitis. [Article in Korean]. *Korean J Gastroenterol* 2007 Dec;50(6):379–83.
13. Isaacs KL, Murphy D. Pancreatitis after rectal administration of 5-aminosalicylic acid. *J Clin Gastroenterol* 1990 Apr;12(2):198–9.
14. Ruderman WB. Newer pharmacologic agents for the therapy of inflammatory bowel disease. *Med Clin North Am* 1990 Jan;74(1):133–53.
15. Fiorentini MT, Fracchia M, Galatola G, Barlotta A, de la Pierre M. Acute pancreatitis during oral 5-aminosalicylic acid therapy. *Dig Dis Sci* 1990 Sep;35(9):1180–2.

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