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SULFASALAZINE INDUCED SKIN RASH- UNCOMMON BUT MERITS CAUTION

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ABSTRACT Sulfasalazine, a commonly used medication in the treatment of ulcerative colitis, is associated with various adverse effects, including rash. Here, we present a case of a 22-year-old male with ulcerative colitis who developed a generalized skin rash following the initiation of sulfasalazine therapy but there were no systemic symptoms or eosinophilia. The rash resolved promptly upon discontinuation of sulfasalazine, highlighting the importance of recognizing and managing medication-induced adverse reactions in the management of inflammatory bowel disease.

KEYWORDS : Sulfasalazine, Sulphapyridine, 5-Aminosalicylic acid, Skin Rash, Ulcerative Colitis

INTRODUCTION

Sulfasalazine is metabolized to sulphapyridine and 5-aminosalicylic acid, which are widely used in the treatment of various autoimmune diseases. Drug hypersensitivity syndrome (DHS) induced by sulfasalazine is a serious systemic delayed adverse drug reaction that typically manifests at 2 to 6 weeks after drug initiation and can be fatal [1,2]. It features many adverse reactions, including fever, rash, sore throat, muscle soreness, lymphadenopathy, blood dyscrasias, and hepatitis [3,4]. Ulcerative colitis (UC) is a chronic inflammatory condition of the colon characterized by periods of remission and exacerbation. Sulfasalazine, a combination of sulphapyridine and 5-aminosalicylic acid (5-ASA), is frequently used in the treatment of UC due to its anti-inflammatory properties. However, sulfasalazine can cause various adverse effects, including gastrointestinal symptoms, headache, and rash. While rash is a relatively uncommon adverse reaction, its occurrence can prompt the discontinuation of sulfasalazine therapy [5].

Case Presentation

A 22-year-old male, not a known case of any chronic illness presented with history of increased frequency of stools associated with blood and abdominal pain for last three months. The patient used to pass six to seven stools which were semi formed, even had nocturnal frequency, blood was mixed with stools and there was significant weight loss i.e. more than 5% in last three months. The complete hemogram showed normocytic to microcytic hypochromic anaemia and mild leucocytosis, all his other routine labs including renal & liver function tests, blood sugar, complete thyroid and renal profile, serum electrolytes, viral screen including HbsAg, anti HCV & anti-HIV antibody, chest x-ray and ultrasonogram were essentially normal. The patient was thought to be suffering from Inflammatory bowel disease and hence was subjected to colonoscopy which revealed changes of ulcerative pancolitis in form of loss of vascular pattern, erythema, granularity and ulceration. The histopathological evaluation also confirmed it to be ulcerative colitis and showed cryptitis and crypt abscess. In view of patient being suffering from moderate to severe ulcerative colitis, patient was started on sulfasalazine therapy, azathioprine, oral steroids and probiotics. The patient was not able to afford biological therapy. He was initiated at a dosage of 1 gram sulfasalazine orally twice daily. Within three weeks of starting sulfasalazine, the patient developed a severe pruritic, erythematous rash involving the trunk and extremities. The rash was characterized by discrete papules and plaques, consistent with a drug-induced hypersensitivity reaction [6]. There were no systemic symptoms like fever, myalgia, lymphadenopathy, breathlessness or eosinophilia, hence ruled out drug rash with systemic symptoms and eosinophilia (DRESS syndrome). Given the temporal association between the initiation of sulfasalazine and the development of isolated rash without any systemic symptoms, sulfasalazine was discontinued [8]. The reason of not developing DRESS syndrome can be as patient was already on oral steroids from beginning of treatment along with sulfasalazine. Following the discontinuation of sulfasalazine, the patient's rash began to improve in 48 hours, with complete resolution observed within one week. There were no other adverse reactions reported, and the patient's symptoms of ulcerative colitis were effectively managed with other therapy.

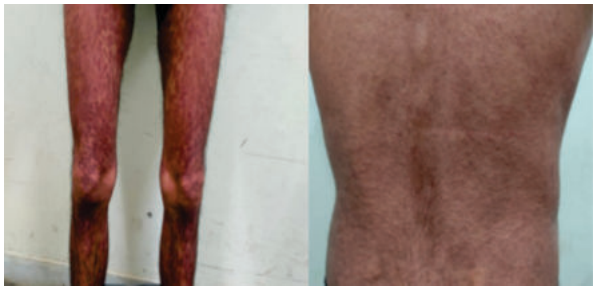

Figure 1- Showing Sulfasalazine Induced Skin Rash On Lower Limbs And Trunk

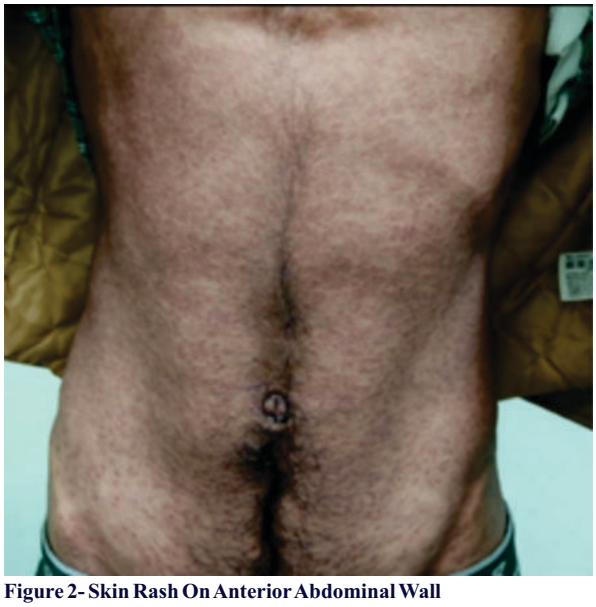

Figure 2- Skin Rash On Anterior Abdominal Wall

DISCUSSION

The occurrence of rash following sulfasalazine therapy is well-documented in the literature, with reported incidence rates ranging

from 3% to 25% [7]. The rash is thought to result from a hypersensitivity reaction to sulphapyridine, one of the components of sulfasalazine. While the mechanism underlying sulfasalazine-induced rash remains incompletely understood, it is believed to involve immune-mediated processes [9]. DRESS syndrome is a rare adverse reaction that can be life-threatening in severe cases. One of its important features is a long incubation period, and symptoms usually appear 2 to 6 weeks after sensitization [10-12]. The early rash manifests as scattered red macules and maculopapular rashes that usually first appears on the face and then extended to the trunk and limbs. The rash gradually increases from top to bottom. Patients often present with itchy skin, fever, facial swelling, and generalized lymphadenopathy. The rash first appears on the distal limbs and then on the trunk and face. Unlike general drug eruptions, the rash does not subside quickly after discontinuation of the sensitizing drug, and patients may require further care when hormone therapy is discontinued prematurely [13-15]. Prompt recognition and discontinuation of sulfasalazine are essential to prevent the progression of the rash and potential systemic complications.

CONCLUSION

In conclusion, sulfasalazine-induced rash is uncommon but should be considered in patients who develop cutaneous eruptions following the initiation of sulfasalazine therapy. Prompt discontinuation of sulfasalazine can lead to rapid resolution of rash and prevent further complications. Clinicians should remain vigilant for medication-induced adverse reactions and consider alternative therapeutic options when managing patients with inflammatory bowel disease. Further research is warranted to elucidate the underlying mechanisms of sulfasalazine-induced rash and identify strategies for its prevention.

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