ANTACID PREPARATION INDUCED ERYTHEMATOUS SKIN RASHES: A CASE REPORT.
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ABSTRACT: Cutaneous drug eruptions (CDE) are common in clinical practice. Drugs which are routinely prescribed to the patients may sometimes produce unexpected side effects like skin rashes. We herein are reporting a rare case of generalized erythematous rash induced by an antacid suspension which is commonly used for symptomatic treatment of gastritis.

KEY WORDS: Cutaneous drug eruptions, Antacids, erythematous rash, gastritis.

INTRODUCTION: Cutaneous drug eruptions (CDE) are the most common cutaneous adverse events encountered in clinical practice. [1] The overall incidence rates of CDE among in-patients in developed countries range from 1-3%[2,3] while in developing countries like India, studies have reported it to 2–5% of hospitalized patients. [4-6] Almost any medicine can induce skin reactions, and certain drug classes, such as non-steroidal anti-inflammatory drugs (NSAIDs), antibiotics and antiepileptics have drug eruption rates approaching 1–5%. [2] Antacids are known to be a rare cause of skin reactions (rates estimated to be 3 cases per 1000). [7] Antacids have been commonly used for the treatment of duodenal and gastric ulcers, stress gastritis, gastro-oesophageal reflux disease, pancreatic insufficiency and non-ulcer dyspepsia.[8] Here, we report a case of 25-year-old male who developed cutaneous rashes to an antacid preparation.

CASE REPORT: A male patient aged 25 years presented with history of vomiting and upper abdominal pain of 2 days duration. He was treated elsewhere for upper respiratory tract illness (URTI) with oral antibiotics, Paracetamol and anti-histamines 5 days prior to admission. His symptoms of URTI improved with treatment but developed vomiting and upper abdominal pain for which he got admitted. The diagnosis of drug induced gastritis was made and patient was advised to stop the previously prescribed medications. He was started with intravenous (IV) fluids and injection pantoprazole 40mg IV bid dosage. Patient continued to have pain abdomen for which he was started with an antacid preparation 10ml tid on the 3rd day after admission. Within 12 hrs after initiation of antacid preparation, patient developed severe itching followed by generalized macular and erythematous rash. The rashes were more confluent in both upper and lower limbs including axilla (Fig-1a, 1b). Possibility of an ADR was considered. The causality assessment was carried out using the Naranjo ADR probability scale and WHO-Uppsala monitoring centre (UMC) causality assessment criteria. The rashes became more severe after a re-challenge with the antacid preparation on next day. Complete blood count and biochemical investigations were normal. A diagnosis of cutaneous drug eruptions to antacid preparation was made and the patient was told to stop the offending agent. He was started on oral antihistamines and IV steroids under the cover of
pantoprazole infusion taking care not to worsen the gastritis. Rashes disappeared within 24 hours after initiation of therapy and the patient was discharged after 2 days of complete recovery.

**DISCUSSION:** Antacids are commonly used drugs for the symptomatic relief of pain abdomen in acid peptic disease. Various group of drugs, intravenous and oral preparations used in the management of acid peptic disease are usually safe. The development of rash as a complication of these drugs is rare and more so with antacid preparations.

Antacids are the commonly used drugs in clinical practice as well as non-prescription remedies by the patients. Acute gastric erosions and gastric bleeding due to various drugs are common in clinical practice. Various drugs and "stress" break the gastric mucosal barrier, allowing increased back diffusion of hydrogen ions causing gastric erosions, stress ulcers, and gastric bleeding. Presence of acid seems to be necessary for the occurrence of these lesions. Antacids may be effective in preventing these lesions. [9]

Most adverse effects from antacids are minor like diarrhea (magnesium hydroxide) and constipation (aluminum hydroxide) with periodic use of small amounts. However, when large doses are taken for long periods of time, significant adverse effects like osteomalacia may occur especially in patients with underlying renal diseases. [10] These adverse effects can be reduced by monitoring of electrolyte status and avoiding aluminum-containing antacids to bind dietary phosphate in chronic renal failure. The antacid preparation used in the present case contained magnesium hydroxide, aluminium hydroxide and a local anaesthetic agent oxethazaine. As it was a fixed dose combination, the adverse effect could not be ascertained to any particular component of the preparation. Even though antacid induced rashes are documented in some pharmacovigilance studies, [11, 12] case reports highlighting about antacid preparation induced cutaneous rashes are sparse. With polypharmacy prescription in practice, sometimes it becomes difficult to pinpoint the offending agent.

In our patient, a systematic approach was followed to determine whether the suspected adverse drug reaction (ADR) was actually due to the drug or a result of other factors. Naranjo's causality scale was used to determine a causal relationship between cutaneous rash and antacid preparation. WH0-Uppsala monitoring centre (UMC) causality assessment criteria also indicated a probable association. Our patient received only pantoprazole injection for first two days without any ADRs. When patient received an antacid preparation, he developed pruritis followed by generalized rashes within 12hrs of therapy. Patient recovered completely after stopping antacid preparation followed by IV steroids, IV pantoprazole and oral antihistaminics.

The present case emphasizes the need for careful monitoring of uncommon ADRs of commonly prescribed drugs especially with polypharmacy prescriptions. Cutaneous eruptions can be a potential adverse effect of antacid preparations. There is an inherent underreporting of mild and self-limiting cases. Practitioners should be aware of this rare adverse event, especially as antacids are used for common conditions like acid peptic diseases.

**REFERENCES:**


Fig-1a: Figure showing generalized erythematous rashes more confluent in axilla.
Fig-1b: Figure showing generalized erythematous rashes on the back

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