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A Life Saved: One Poison Neutralizes Another.

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ABSTRACT

Suicide by poisoning is quite common, particularly in the young female population. If the person was being prescribed medicines for any reason, then he/she attempts suicide by taking an overdose of these medicines. If not, they procure sedative-hypnotics (most commonly). Here, we present a case of attempted suicidal ingestion of diclofenac, omeprazole and paracetamol. The patient did not have any symptoms despite intake of significantly high doses. We feel that the gastric irritability (and hence the symptoms) that is commonly seen with overdose of NSAIDs was probably nullified because the patient had also consumed significantly high dose of omeprazole, thus making it an interesting case snippet.

Keywords: Suicide, diclofenac, omeprazole, paracetamol.

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INTRODUCTION

NSAIDs (Non-Steroidal Anti-Inflammatory Drugs) are commonly used drugs for suicidal poisoning. This is because of easy availability over the counter, and also because most patients have stocks of these drugs at home or office. Several multinational studies have shown that NSAIDs are the most commonly used poisons, with paracetamol, aspirin and diclofenac being the frequent culprits [1]. NSAIDs may cause features like gastric irritation, hepatotoxicity and nephrotoxicity in such individuals who have taken an overdose [2-4].

PPIs (Proton Pump Inhibitors) are another commonly prescribed class of drugs, which is also easily available over the counter. Hence, they are again liable to be used for suicidal purposes. However, since they do not cause significant acute symptoms, there is gross under-reporting of PPI poisoning or overdose. Pantoprazole and omeprazole are the most likely candidates for poisoning due to PPIs [5].

CASE REPORT

A 20-year-old female student from Kundapura, Karnataka, was brought to our emergency triage area with an alleged history of consumption of multiple tablets (10 tablets of diclofenac sodium, 3 tablets of paracetamol and 18 capsules of omeprazole) as a suicidal attempt. According to her brother (who accompanied her), the patient had fought with her parents at home, and went on to consume these medications (which she had been prescribed for dysmenorrhea, a few days ago). After consuming them, the patient slept. The brother noticed the empty blister packs next to the bed, and hurried the patient to a local hospital. There, a gastric lavage was done, and the patient was referred to our hospital for further management.

On examination, the patient was conscious and oriented to time, place and person. Her vitals were stable. Tentative cuts were visible on both her forearms. Systemic examination was normal. Basic laboratory investigations were asked for, which were all under normal limits.

DISCUSSION

Although paracetamol has a specific antidote (N-acetylcysteine), other NSAIDs do not have such an entity. Treatment is based on the symptoms that the patient presents with. The general thumb rule is to administer a gastric lavage, followed by antacids or oral PPIs to prevent or minimize gastric toxicity [6]. In our case, the patient has consumed significant amounts of PPIs as well, as part of her suicidal ideation. Hence, our hypothesis is that the PPI has neutralized the gastric toxicity of NSAIDs, and also minimized the systemic absorption of the same (gastric lavage may have also helped). On presentation, since the patient had no symptoms, acute poisoning was ruled out. Also, at the time of discharge, the patient was absolutely asymptomatic, thus ruling out chronic or subacute toxic symptoms as well.

CONCLUSION

As evident from this case, one drug has neutralized the effects of the other, hence minimizing or totally nullifying the acute symptoms that could have resulted in severe morbidity and mortality of the patient.

REFERENCES

- [1] Prescott K, Stratton R, Freyer A, Hall I, Le Jeune I. Detailed analyses of self-poisoning episodes presenting to a large regional teaching hospital in the UK. *Br J Clin Pharmacol* 2009;68(2):260-8.
- [2] Diggory P, Golding RL, Lancaster R. Renal and hepatic impairment in association with diclofenac administration. *Postgrad Med J* 1989;65(765):507-8.
- [3] Schapira D, Bassan L, Nahir AM, Scharf Y. Diclofenac-induced hepatotoxicity. *Postgrad Med J* 1986;62(723):63-5.
- [4] Purcell P, Henry D, Melville G. Diclofenac hepatitis. *Gut* 1991;32(11):1381-5.
- [5] Bateman DN, Colin-Jones D, Hartz S, et al. Mortality study of 18000 patients treated with omeprazole. *Gut* 2003;52(7):942-6.
- [6] Greene S, Dargan P, Jones A. Acute poisoning: understanding 90% of cases in a nutshell. *Postgrad Med J* 2005;81(954):204-16.