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### CASE REPORT

#### ANACIN INDUCED ADVERSE DRUG REACTION: A CASE REPORT

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#### ABSTRACT

Anacin; a brand of aspirin tablets (containing 300mg acetylsalicylic acid), is a widely used analgesics. It is recognized as one of the oldest brands of pain relievers. Its primary content is acetylsalicylic acid. Here we report a case of a 26-year old woman (64 kg in weight and 1.41m in height) who presented with adverse drug reaction secondary to Anacin ingestion following gum pain from fish bone injury. About 30mins after ingesting the drug, she presented with headache, excessive lacrimal gland secretion and facial swelling. Considering these presentations by inference, Anacin may have the potential to cause severe adverse drug reaction in some individuals. Hence, care should be taken by doctors, pharmacist and other health care providers when prescribing and monitoring patients placed on this medication. Additionally, a detailed history should be taken prior to prescribing and appropriate reporting should be made to relevant health authorities when such severe reactions are observed.

**Keyword:** *Anacin, adverse drug reaction, pain, Acetylsalicylic acid.*

#### INTRODUCTION

Non Steroidal Anti Inflammatory Drugs (NSAIDs) are drugs that provide analgesic and antipyretic (fever reducing) effect and in higher doses, anti Inflammatory effect (Warden, 2010; Burke et al., 2006). They are used for painful conditions associated with swelling, redness and loss of function of the affected part (Burke et al., 2006; Rossi, 2006; Green, 2001; Gotzsche, 1989). Some like aspirin and dipyron also have the power to reduce fever (Burke et al., 2006).

Anacin; a brand of aspirin tablets containing 300mg acetylsalicylic acid, is the trade name of a widely used analgesics sold over the counter (Sanmarkan et al., 2011). Acetylsalicylic acid is used to relieve pain and bring down fever (Burke et al., 2006). It is also used in rheumatism and other conditions of bone pain. It is reported that it should not be given to children less than one year and should be used with care in asthmatic patients and all who have previously reported difficulty with breathing.

Though rare, adverse drug reactions are reactions triggered by a drug's active metabolite or by products. Specifically, adverse drug reactions are noxious or unintended reactions to a drug that is administered in standard doses by the proper route for the purpose of prophylaxis, diagnosis, or treatment of a specific disease (Vervloet and Durham, 1998; WHO 1970). Adverse reactions occur in about 5% of patients receiving any drug, and 0.03% of hospital deaths are believed to be drug-related (Fraser et al., 1999). Considering the fact that information on drug safety is of unquestionable importance (Loke et al., 2006), hence, all adverse drug reactions must be reported.

Here we reported a case of a lady who presented with adverse drug reactions secondary to Anacin ingestion.

## CASE PRESENTATION

A twenty-six (26) year old lady was referred to the hospital with an hour history of bilateral-periorbital swellings, reddish eyes, visual impairment, headache and pains secondary to ingestion of 300mg Anacin, a brand of acetylsalicylic acid.

A night earlier, she noticed injury on her gum following an attempt to chew a fish bone. In less than 24 hours, she complained of pains in her gum and physical examination revealed no sign of pathology. The patient subsequently visited a patent medicine store and was given Anacin (made in Nigeria by SKG-PHARMA Ltd); a drug whose indications are headaches, neuralgia, colds, muscular pain and pain following tooth extraction.

She took two tablets and about 25 – 30 minutes after ingestion of the drug, she noticed severe headache and pains in her eyes. Ten (10) minutes later she noticed tearing from her eyes which were by this time reddish and later got swollen and occluded. Also observed was facial swelling which extended to her cheeks, nose and lips.

She was then rushed to the hospital where she was admitted in the emergency ward and attended to immediately by the doctor who made a diagnosis of an allergic drug reaction. She was managed with IV Hydrocortison 100mg daily for 3 days, IV Genticin 80mg start dose and was placed on Genticin eye drops (2 drops per eye thrice daily for 3 days) as well as paracetamol tablets and Vitamin C.

Her condition showed marked improvement after about 25 minutes of commencement of treatment.

## DISCUSSION

Case reports of suspected adverse drug reactions are said to be common in the medical literature (Aronson et al., 2002). However, there is paucity of information regarding severe adverse drug reaction from Anacin. By implication, these cases are either not reported or left unpublished. According to data published in 2010, there is under-reporting of adverse drug reaction in some tertiary health centers in Nigeria (Obodo and Iribhogbe, 2010) as well as around the world (Aronson et al., 2002). Adverse drug reaction due to analgesic is implicated in about 1.1% of observed adverse drug reaction in some tertiary health centers in Nigeria (Iribhogbe and Agbaje, 2011a). Although most of these reactions were observed to be mild to moderate at presentation, however, case reporting remains a sine qua none in the post-marketing surveillance of most drugs.

Essentially, type 1 hypersensitivity reaction underlies the adverse reaction to Anacin as presented in this report. This is due to IgE priming and massive degranulation of mast cells and basophil accompanied by release of leukotrienes and other inflammatory mediators on exposure to the culpable allergen, in this case acetylsalicylic acid (ASA). Based on the classification of adverse drug reaction by Rawlin and Thompson (1991), the clinical presentations of the patient suggest type B reaction. Additionally, intravenous corticosteroid administration has been found to account for 24.1% of clinical management of ADR in patient by resident doctors in Nigeria (Iribhogbe and Agbaje, 2011b). The case report showed a remarkable improvement in clinical presentation following intravenous hydrocortisone therapy. This re-emphasizes the fact that intravenous corticosteroid administration remains the main stay of first line therapeutic response to patient with type B adverse drug reactions.

According to Sanmarkan et al., (2011), Anacin contains acetylsalicylic acid plus caffeine. The adverse drug reaction reported for acetylsalicylic acids include; gastric upset, hypersensitivity reaction may occur after ingestion of ASA by patients with asthma and nasal polyps. In addition, those from caffeine include; disturbing effect of sleep and cardiac rhythm in some individual. A withdrawal syndrome characterized by lethargy, irritability and headache has been observed in some users.

Although the adverse drug reactions for both contents of Anacin did not include the observed presentations in this case, the possible explanation for this case is that the patient's presentation may be idiosyncratic.

In conclusion, Anacin may be widely used as an analgesic medication. Despite its reported safety, it may have the potential to cause excessive lacrimal gland secretion (tearing), periorbital swelling and facial oedema as adverse side effects even at the recommended dosages. Thus, Anacin may induce idiosyncratic adverse reaction, hence, health care providers should be aware of the potential deleterious effect of Anacin while prescribing same for patients with previous history of allergic reactions.

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## AUTHORS' CONTRIBUTIONS

All authors (Momoh ARM., Iribhogbe OI, Idonije OB, Uko V. and Akpamu U) contributed to the development and presentation of this case report.