INTERNATIONAL JOURNAL OF PHARMACOLOGY AND THERAPEUTICS
eISSN 2249 – 6467

# Case Report

# EXTRAPYRAMIDAL DYSFUNCTION WITH DIFFERENT DRUGS IN THE SAME PATIENT

**Wilson I. B. Onuigbo**

**Medical Foundation and Clinic, 8 Nsukka Lane, Enugu 400001, Nigeria**

**Corresponding author:** Dr. Wilson I. B. Onuigbo

**Received on: 20/07/2015 ; Published online: 03/10/2015**

## ABSTRACT

Unusual side effects of different drugs in the same patient are rare. Extrapyramidal dysfunction occurred in a 30-year-old Nigerian woman following initial metoclopramide hydrochloride symptomatic treatment of vomiting and of second prochlorperazine meleate treatment of dizziness at an interval of four years.

**KEY WORDS**: Drugs, adverse effects, same patient, different occasions.

## INTRODUCTION

Lortie[1] defined "adverse drug reaction" (ADR) in its most general sense as "a detrimental reaction associated with or attributed to a drug given at recommended dosages." According to Helpler and Strand,[2] some 12,000 deaths and 15,000 hospitalizations due to ADRs were reported to the FDA of USA in 1987. In fact, between 1972 and 1979, articles on ADRs appeared 5,737 times in 80 countries.[3] From India, Pasricha and Shukla[4] reported on independent lesions of fixed drug eruption due to two unrelated drugs in the same patient. Therefore, a Nigerian patient merits documentation since extrapyramidal dysfunction developed as a result of one or two standard doses of two structurally different drugs.

## CASE REPORT

In a self-referral, outpatient, weekday, evening Clinic situated in Enugu, a 30-year-old Nigerian woman of the Igbo ethnic group presented with severe vomiting and was given 10 mg metoclopramide hydrochloride intramuscularly. She came back next morning complaining of twisting sensations in the neck, odd feelings in the fingers of the right hand which moved involuntarily, and right-sided facial spasms. She was tearful and yet appeared to be grimacing. She denied having had such an experience before.

Four years later, she became ill and a quack administered chloroquine injection on her. Thereafter, she resorted to self-medication with oral tablets of this drug. When she attended the clinic on the third day, her only complaint was dizziness. To control this troublesome symptom, she was given 5 mg tablets of prochlorperazine meleate, one to be taken 6-hourly as necessary. By the time she took the second dose, she began to experience precisely the same extrapyramidal symptoms as on the previous occasion. Treatment with Belladonna and stoppage of the offending tablet aborted the symptoms within the day.

Physical examination and routine laboratory tests of blood, urine and stool were normal, apart from the discovery of ova of *Ascaris lumbricoides*, a common intestinal parasite here. The patient has now been followed up for over three years and has had no further dysfunctional episode.

## DISCUSSION

This case report describes the extrapyramidal side effects (EPS) which sometimes appear in patients taking certain drugs. "The extrapyramidal diseases," wrote Calne and Eisler,[5] "are likely to continue to be a fertile if at times frustrating field for future research." In another report,[6] the factors related to EPS were sought in variables such as age, sex, dosage, and co-medication. With regard to dosage, EPS followed *chronic* amphetamine abuse.[7] Similarly, reports on neuroleptics[8] and metoclopramide[9] indicate that long-term dosage is an important factor. In contrast, the present patient reacted to initial doses of these drugs.

It is noteworthy that, as the *Merck Index*[10] shows, the two drugs administered to my patient have different structures. Prochlorperazine is a well known phenothiazine, whereas metoclopramide is the prototype of the substituted benzamides.[11] Interestingly, both of them are blockaders of central dopamine receptors. Perhaps, such blockade occurred relatively easily in this woman because of idiosyncrasy, a phenomenon that Wilke et al[12] reviewed in terms of identifying the genetic risk factors.

## CONCLUSION

One may generalize on ADRs. For instance, an Editor did so recently with particular reference to agenda for research including individual susceptibility factors.[13] Interestingly, Sellers[14] had included two conditionalities for such researches as follows:

- Definite: An event that follows a reasonable temporal sequence from administration of the drug(s), or in which the concentration of the drug(s) has been established in body fluids or tissues; that follows a known pattern of response to the drug(s); and that is confirmed by improvement when administration of the the drugs (dechallenge) is stopped and reappearance of the reaction when administration is begun again (re-challenge).
- Conditional: An event that follows a reasonable temporal sequence from administration of the drug(s); that does not follow a known pattern of response to the suspected drug(s); but that could not be reasonably explained by the known features of the patient's clinical state.

# REFERENCE

1. Lortie FM. Postmarketing surveillance of adverse drug reactions: problems and solutions. Can. Med. Assoc. J. 1986; 135: 27-32.
2. Hepler CD, Strand LM. Opportunities and responsibilities in pharmaceutical care. Am. J. Hosp. Pharm. 1990; 47: 533-543.
3. Soffer A. The practitioner's role in detection of adverse drug reactions. CHEST. 1984; 86: 808-809.
4. Pasricha JS, Shukla SR. Independent lesions of fixed eruption due to two unrelated drugs in the same patient. Br. J. Dematol. 1979; 101: 361-362.
5. Calne DB, Eisler T. The pathogenesis and medical treatment of extrapyramidal disease. Med. Clin. N. Am. 1979; 63: 715-727.
6. Moleman F, Schmitz PJM, Ladee GA. Extrapyramidal side effects and oral haloperidol: an analysis of explanatory patient and treatment characteristiscs. J. Clin. Psychiat. 1982; 43: 492-496.

7. Lundh H, Turnving K. An extrapyramidal choreiform syndrome caused by amphetamine addiction. J. Neurol. Neurosurg. Psychiat. 1981; 44: 728-730.
8. Tune LE, McHugh PR, Coyle JT. Management of extrapyramidal side effects induced by neuroleptics. Johns Hopkins Med. J. 1981; 148: 149-153.
9. Indo T, Ando K. Metoclopramide-induced parkinsonism. Arch. Neurol. 1982; 39: 494- 496.
10. Merck Index. An encyclopedia of chemicals and drugs. Rahway: Merck & Co 1977; 802 and 1006.
11. Schulze-Delrieu K. Metoclopramide. N. Eng. J. Med. 1981; 305: 28-33.
12. Wilke RA, Lin DW, Roden DM, et al. Identifying genetic risk factors for serious adverse drug reactions: current progress and challenges. Nature Reviews Drug Discovery. 2007; 6:904-916.
13. Aronson JK. Editor's view. An agenda for research on adverse drug reaction. Br. J. Clin. Pharmacol. 2007; 64: 119-121.
14. Sellers EM. Adverse drug reactions: uncommon or unrecognized? Can. Med. Assoc. J. 1979; 120: 1200-1201.