Sudden Deaths While on Halofantrine Treatment - A Report of Two Cases from Peshawar

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Introduction

Halofantrine is one of the newer antimalarials introduced in Pakistan in 1990. It is phenanthrene-methanol, structurally related to mefloquine. Under the brand name Halfan (SK&F, France) it is already being widely used as a first line antimalarial in the country. A study reported in the Lancet has found prolongation of QT interval in patients on halofantrine treatment and has warned of the possibility of sudden deaths due to halofantrine. We report here two sudden deaths in Peshawar in patients receiving halofantrine.

Case 1

A two year old boy weighing 8 kg, was admitted with a history of fever, vomiting and diarrhoea of 18 days duration. Cough had started two days before admission. No history of past illness was present and there was nothing relevant in the family history. On examination he was anaemic, moderately dehydrated and looked ill. Temperature was 102°F. No other abnormality was found on examination. Laboratory investigations showed a haemoglobin of 5.12 g/dl, a total leucocyte count of 10,200/cumm with 80% polymorphs and 20% lymphocytes in the peripheral blood smear and smears for malarial parasites positive for plasmodium vivax. No abnormality was found in urine analysis. Widal test for enteric fever was negative. The child was started on amodiaquine 10 mg/kg first dose, followed by 5 mg/kg after 6 hours and then 5 mg/kg daily for 5 days. His dehydration was corrected with intravenous fluids. 450 ml blood transfusion was given for the severe anaemia. The temperature settled on the second day and his general condition improved. However, on the 5th day the temperature recurred. Suspecting resistant malaria he was started on halofantrine 8 mg/kg 6 hourly for three doses. The first dose was administered at 10 A.M. At about noon he developed hoarseness of voice. This was not reported by the mother to the ward staff. The second dose was given by the mother at 2.00 P.M. Soon after the second dose the child complained of some abdominal discomfort which again was ignored by the mother. The child’s condition suddenly deteriorated at about 6.30 P.M. The doctor present in the ward detected a tachycardia with occasional missed beats on clinical examination and ordered an EGG. However, soon after the patient developed bradycardia and died before the EGG could be done. There were no convulsions and no evidence of aspersion.

Case 2

16 months) died at home. The details were reported by the husband to the first author when he brought his two children to her clinic about a week after the mother’s death. According to the husband the woman was having an intermittent fever with shivering for about 6-7 days before she consulted a local general practitioner. He prescribed cephalexine (ceporex) capsules one 8 hourly and halofantrine 500 mg (two tab) 8 hourly for three doses. On the day of her death she had taken the first dose of halofantrine in the morning at an unspecified time and the second dose after lunch at about 2 P.M. At about 4.00-4.30 P.M. she served tea to her husband and as she was walking away she suddenly sat down on the floor, then slumped forward and when the husband lifted her, stretched, took two or three jerky breaths and died. In the past, the husband said, two years back she had suddenly developed low
blood pressure and collapsed but recovered after her hands and feet were rubbed. Before and since then, she had no history of any convulsions or heart disease.

**Discussion**

The main purpose of this report is to focus attention on the irrational disease management in Pakistan which may be responsible for unrecognised morbidity and mortality in the population. In the absence of an organized system for adverse drug reactions reporting there is no way of knowing the magnitude of the problem of iatrogenic disease and mortality from adverse drug reactions. The over and misuse of medications has been documented in a few recent reports. The mortality caused by loperamide has drawn attention to the seriousness of the situation. Is halofantrine also causing deaths? More evidence is needed to establish the association between halofantrine and sudden death. However, the possibility is there, owing to its reported cardiotoxicity and a role as yet, has not been assigned to it even in the treatment of multi-drug resistant malaria.

**References**