



Abstract 007

Artemisinin Associated Heart Block in Falciparum Malaria –Case Report

Patil Manisha, Kondekar Santosh, Rathi Surbhi, Tamanhkar Priti, Gore Rameshwar
Department of Pediatrics, T.N.Medical College & B.Y.L Nair Hospital, Mumbai

Address for Correspondence: Dr Patil Manisha S, RH-02, Agrawal vihar, Sector-7, plot no.40, Koperkhairne, Navi Mumbai-400709. Email-Dr.manishap@gmail.com

Abstract:

Introduction: Antimalarials mainly quinidine group and halofantrine group have been associated with cardiac conduction abnormalities. Artemisinin associated heart blocks are rarely reported.

Case summary: An 8 year old girl presented with history of high grade fever, lethargy, and decreased urine output with thrombocytopenia. Hb was 9.6 gm%, total leucocyte counts were 11,000/mm³ & platelet count 46,000/mm³. An antigen test for falciparum malaria was positive. This child was started on intravenous artesunate. On day 4 of hospital stay, bradycardia was observed. ECG findings showed type II heart block with prolonged QT interval. Parasitemia remitted in 3 days of starting therapy. Workup for other infections like leptospira, dengue were negative. Discharge was uneventful.

Discussion: Most available antimalarial drugs induce cardiac side effects. These include mild heart rate changes (amodiaquine) to excessive prolongation of the QT interval (halofantrine) which may lead to lethal arrhythmias such as Torsade de Pointes. The cellular mechanism of such events is principally related to ion channel inhibition which may slow the repolarisation and lead to arrhythmia. There are two human case reports mentioning artemisinin associated cardiac conduction abnormalities. Malaria as a cause of complete heart block has also been reported. As conduction abnormalities were noted within 72 hours of starting artesunate; the heart block in this case can be associated to the use of artesunate.

Conclusion:

Cardiac conduction abnormalities with malaria and antimalarials need to be kept in mind in children on artesunate therapy.