

Quinolone Induced Deafness

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Abstract

Fluoro-quinolones have many adverse effects. Their frequency has increased because of their widespread use. We report quinolone induced deafness in 26 patients out of 2000 in hospital patients receiving various quinolones. This was a 10 year prospective study. This adverse effect report is first of its kind in literature.

Key Words

Quinolones, Adverse effects, Ototoxicity, Deafness.

Introduction

With increasing and widespread use of newer Quinolones in various infections, the frequency of adverse reactions is becoming more. Occurrence of central nervous system (CNS) toxicities (1,2) and anaphylactoid reactions (3,4) have been reported. We report reversible deafness induced by Quinolones in 26 patients, observed out of 2000 in hospital patients who were treated with various Quinolones (ciprofloxacin, norfloxacin, pefloxacin) during last ten years for various infections.

Material and Methods

In a prospective study over a period of ten years (1990-1999), 2000 patients admitted in different medical wards of the hospital for various infections and receiving different quinolones were observed for adverse reactions to these drugs. Patients who developed deafness were recorded separately. After complete history taking and clinical examination, otologic evaluation including pneumatic examination with a hand-held micro-otoscope

was done. Other audiological tests including the assessment of pure-tone air and bone conduction thresholds were conducted in a sound-proof chamber with an audiometer. Tests were repeated after 2 weeks of stopping the drug.

Results

Of 2,000 in-hospital patients who received quinolones, 26 patients (age 18-28 years, 15 males, 11 females) developed impairment of hearing and tinnitus. Of these 14 received the drug for typhoid fever, 9 for bacillary dysentery, 2 for lower respiratory tract infection and one for bacterial peritonitis. The drugs received were Norfloxacin 800 mg 12 hrly in three, Ciprofloxacin 500 mg 12 hrly in 20 and Pefloxacin 400 mg 12 hrly in three patients. The otic symptoms started on the 7th and 8th day of drug therapy. There was no previous history of taking ototoxic drugs, no history of otorrhea, otologic surgery, skull trauma or infection of upper respiratory tract. On otological examination, patients had intact