INTRODUCTION

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The aminoglycoside antibiotics (gentamicin, tobramycin, amikacin and netilmicin) are widely prescribed in clinical medicine to treat serious infections (Bennett et al.,1982).

These aminoglycosides assumed an important role in antibiotic therapeutics. Gentamicin, for example, has been used with increasing frequency and is today the most commonly used aminoglycoside in the world (Cone, 1982).

The aminoglycosides are among the most potent of the antibiotics available for the treatment of Gram-negative infections and are often the preferred agents for the treatment of urinary tract infections which are resistant to less toxic drugs (Perrin, 1983).

Nephrotoxicity is a well recognized side effect of the aminoglycosides which are one of the commonest causes of renal failure due to antibiotics (Perrin, 1983).

The effect of aminoglycoside antibiotics on the kidneys has been the subject of considerable interest, not only because of its clinical importance, but also because of the acute renal failure model produced by these compounds (Luft, 1985).

Nephrotoxicity is a major adverse effect of aminoglycoside antibiotic agents. The clinical picture is typically one of

nonoliguric acute renal failure with a slight to moderate decrease in creatinine clearance 5 to 7 days after treatment is begun. Severe renal impairment is unusual and the effect appears to be reversible (Moore et al., 1984).

The functional changes are at first discrete, comprising polyuria, slight proteinuria, enzymuria and glycosuria (Dahlager, 1980).

Smith (1980), Cone (1982), and Kahlmeter (1984) mentioned that in most reports nephrotoxicity of aminoglycosides was documented by an increase in serum creatinine and decrease creatinine clearance values. In the relative nephrotoxicity studies, variable results are found whether in laboratory animal studies or clinical trials.

This is a comperative study on nephrotoxicity of drugs in the hope that we can choose or recommend the best.