

Oral Abstracts

6A-02

CARDIAC GLYCOSIDES: HOW TO OPTIMIZE ANTI-DIGOXIN FAB FRAGMENTS?

Betty Chan^{1,2}, Angela Chiew^{1,2}, Nicholas Buckley^{2,3}

¹Prince of Wales Hospital, Dept of Emergency Medicine & Clinical Toxicology, Sydney, Australia

²New South Wales Poisons Information Centre, Sydney, Australia

³University of Sydney, Dept of Clinical Pharmacology, Sydney, Australia

Objective: There are controversies regarding the use and dose of anti-digoxin specific antibody (Digoxin Fab) in digoxin and cardiac glycoside poisoning. In this talk, we describe the use of digoxin specific antibodies (Digoxin Fab) in acute and chronic digoxin poisoning and cardiac glycoside toxicities.

Learning Objectives:

1. To recognize the signs & symptoms of severe digitalis toxicity.
2. To rationalise and titrate the use of digoxin Fab in digoxin poisoning.
3. To understand when anti-digoxin specific antibodies are indicated in cardiac glycoside poisoning.

Methods: To discuss the use and effectiveness of digoxin Fab in two prospective studies on acute and chronic digoxin poisoning. This will be contrasted against traditional teaching on the use of digoxin Fab in digoxin and cardiac glycoside poisoning.

Results: In acute digoxin poisoning, Digoxin Fab may be given in staggered doses in the first 24–48h, titrated against ECG changes and clinical response. In chronic digoxin poisoning, one or two vials of digoxin Fab bound all free digoxin but the median change of heart rate is only modest following the administration of Digoxin Fab. Free digoxin concentration reduced to almost zero following the administration of digoxin Fab but there is a rebound of free digoxin that may not be clinically significant.

Conclusions: Digoxin Fab in staggered doses are effective in managing arrhythmias in acute digoxin overdoses. In chronic digoxin toxicity, it is not as effective in managing brady-arrhythmia. It is not clear regarding the optimal dose of digoxin Fab in the management of cardiac glycoside poisoning.