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Cases of digitalis toxicity in the Department of Cardiology of the General Hospital of Kalamata

Cardiac glycoside (digitalis) toxicity continues to be a problem because of the wide availability of digitalis and the narrow safe therapeutic window. Digitalis is still commonly used in the treatment of congestive heart failure (CHF), atrial fibrillation, and reentrant supraventricular tachycardia.1 Although the overall use of digitalis has decreased in recent years, the number of patients admitted with digitalis toxicity has remained stable.² In 2011, 2,470 cases of cardiac glycoside overdose were reported to the US poison control centers, of which 162 were patients who suffered major toxicity requiring treatment in a health care facility.3 Comparable data are lacking in Greece, and our aim was to record all cases of toxicity from digoxin (the formulation of digitalis used in Greece) treated in the Department of Cardiology of the Kalamata General Hospital over a 9-year period. The hospital is a 300-bed public hospital, serving an area with a population of over 170,000 in the Messinia region of Southwestern Greece.

We analyzed retrospectively the data on the 24,547 patients admitted to the Department of Cardiology from January 2003 to December 2011 to identify cases of digitalis toxicity. The population of the Messinia prefecture was derived from the 2011 National Census. The place of residence of the patients was classified as urban (≥10,000 people) and rural (<10,000), based on data from the National Statistical Authority of Greece. We collected data from the hospital records on the demographic characteristics and mortality from digitalis toxicity.

Digoxin intoxication was identified in 0.24% (n=59) of acute admissions to the Department of Cardiology. The mean age [±standard deviation (SD)] of the patients was 83.7±6.2 years and 47 (79.7%) were women and 12 (20.3%)

were men, all of Greek origin. The number of patients from urban areas was 19 (34.5%) and from rural areas 36 (65.5%); relevant data were missing for 4 patients. Two deaths were attributed to digitalis toxicity. The mean duration of hospitalization duration was 3.9 days.

Our findings suggest that digitalis toxicity is still prevalent in the population of Messinia, and at a higher rate than in Northern Europe.⁴ It is a life-threatening condition that can develop particularly in elderly female patients. Careful monitoring of digoxin administration, along with early detection of arrhythmias and clinical manifestations, can lead to effective intervention and a decrease in morbidity and mortality.

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ΠΕΡΙΛΗΨΗ

Περιστατικά τοξικού δακτυλιδισμού στην Καρδιολογική Κλινική του Γενικού Νοσοκομείου Καλαμάτας

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