Abstract:

Background: Intravenous amiodarone is an important treatment for arrhythmias, but peripheral infusion is associated with direct irritation of vessel walls and phlebitis rates of 8% to 55%.

Objectives: To determine the incidence and factors contributing to the development of amiodarone-induced phlebitis in the coronary care unit in an academic medical center and to refine the current practice protocol.

Methods: Medical records from all adult patients during an 18-month period who received intravenous amiodarone while in the critical care unit were reviewed retrospectively. Route of administration, location, concentration, and duration of amiodarone therapy and factors associated with occurrence of phlebitis were examined. Descriptive statistics and regression methods were used to identify incidence and phlebitis factors.

Results: In the final sample of 105 patients, incidence of phlebitis was 40%, with a 50% recurrence rate. All cases of phlebitis occurred in patients given a total dose of 3 g via a
peripheral catheter, and one-quarter of these cases ($n = 10$) developed at dosages less than 1 g. Pain, redness, and warmth were the most common indications of phlebitis. Total dosage given via a peripheral catheter, duration of infusion, and number of catheters were significantly associated with phlebitis.

Conclusions: Amiodarone-induced phlebitis occurred in 40% of this sample at higher drug dosages. A new practice protocol resulted from this study. An outcome study is in progress.