Cardiac arrest associated with vancomycin in a neonate

EDITOR,—A 13 day old newborn girl was treated for an Escherichia coli infection with a once daily, 20 minute infusion of 150 mg of ceftriaxone. Progress was normal until vancomycin (150 mg) was mistakenly injected intravenously over 20 minutes. Within 10 minutes she stopped breathing and became cyanotic; pulse and cardiac sounds were absent. Bag ventilation with 100% oxygen and chest compressions were immediately started. An endotracheal intubation was performed. The infant recovered within one minute from her cardiac arrest. The evolution during the following 18 months has been favourable.

To our knowledge, four other cases of cardiac arrest after a rapid infusion of vancomycin have been reported involving one adult and three children.1 2 4 Of these, two infants died. No cardiac arrest in a newborn baby has been described before.

This report of a cardiac arrest in a neonate, after a rapid intravenous infusion of vancomycin, strengthens the usual recommendation that this drug should be administered over a prolonged time. The proportion of young children (four out of five) among the reported cases might suggest that a rapid infusion of vancomycin could particularly lead to a cardiac arrest in this age group. This major side effect of vancomycin could be related to a neuromuscular blockade or a ventricular arrhythmia,2 a direct transient depression of the cardiac function,3 or an extreme form of an anaphylactoid reaction.


Predictors of mortality

EDITOR,—Kuint et al have presented the use of the change in a:A ratio from just before dosing to one hour after dosing as a significant predictor of mortality.1 Their basis for recommending this predictor is its correlation with mortality. The traditional measures of the predictive ability of a model for dichotomous outcomes include rates of false positive and false negative results or equivalently, sensitivity and specificity.2 A model that has high predictive power will have low error rates or high specificity and sensitivity and thus correlation close to unity. However, the P value that Kuint et al report corresponds to a null hypothesis that the correlation is zero, whereas prognostic value depends on the correlation being close to unity. Ironically, they present false positive and negative rates from a study model by Patterson et al3 and suggest that this model could be improved by the addition of a:A ratio, while failing to provide the same information for their own model. Without these rates, the prognostic value of a:A ratio for mortality cannot be evaluated.


Guidance after twin and singleton death

EDITOR,—In relation to the perinatal death of a twin baby Dr de Kleine and colleagues recommend that all parents should be given a photograph of their babies together, as well as separately.1 Not all parents would feel comfortable about displaying a photograph of a stillborn baby, but an attractive picture of the two babies can readily be created (sometimes from two separate photographs). We would be happy to provide names of artists prepared to do this.

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