

Erratum

Kinetics of the Translactal Passage of Digoxin from Breast Feeding Mothers to Their Infants

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There was a printing error on p. 50, column 1: line 1 through line 13 should be inserted between lines 2 and 3 of Results.

Therefore, the text on page 50 should read as follows:

linear regression methods [13]. The values found are in accordance with those reported in the literature.

The kinetic constants of one woman, which are representative for the whole sample, were used for a simulation study. The kinetic data of the infants, which were also needed in the simulation study, were taken from the literature [15].

Results

The pharmacokinetic characteristics of the translactal passage of digoxin are shown in Fig. 1 for a 24-year-old individual woman who received 0.5 mg digoxin by an i.v. injection. Obviously, a rapid equilibrium exists between the plasma and the milk compartments and there is no difference between fore- and hindmilk. All three digoxin concentration profiles run parallel and could best be fitted by the sum of two exponential functions (Fig. 1a-c). The estimated initial peak concentration in serum appeared somewhat lower as compared to the milk level, probably because of a lack of the initial data point at 15 min. A summary of the data obtained in all 11 women is provided in Fig. 2. The time of occurrence of the maximum serum and milk concentrations are identical indicating the rapid equilibrium between these two compartments. Thereafter, milk concentrations declined parallel to serum

concentrations and the milk/serum ratio varied within a range from 0.57 to 0.67 with a mean of 0.62. In the two women who received 0.75 mg digoxin orally similar results were obtained. The distribution of digoxin into fore- and hindmilk was in the same order of magnitude: in the 4 women in whom fore- and hindmilk samples had been taken essentially identical values were obtained.

On the basis of these data we estimated the order of magnitude of the digoxin transfer to the suckling infant using a kinetic model of two coupled compartment systems (Fig. 3). This model has been published elsewhere [13]. We have assumed that a lactating mother receives a loading dose regimen of 0.7 mg digoxin every 12 h within 48 h which then is continued by a common maintenance regimen of 0.5 mg day. The time course of the digoxin concentrations in the mother's milk