

RE: Hung CJ, et al. *Annals of Nuclear Medicine* 17: 213–218, 2003.

Hung and coworkers are to be commended for drawing attention to the effects of anesthetics on alveolar capillary permeability. Their study points out that additional variables may have to be considered. Table 3 contains data on “control” patients (those who had intravenous medication rather than inhaled anesthetics). Using the Microsoft XL statistical package for correlation, the 20 patients showed the relationship of the value at 1 hour after surgery (A) to that before surgery (B) to be:

$$A = 1.08B - 5.42 \quad p \leq 10^{-10} \quad [1]$$

Despite this strong correlation, in 6/16 females and 2/4 males, results after surgery revealed delayed clearance as compared to presurgery values. Possible contributions by recumbancy and intubation have to be considered.

In Table 1, Hung and associates listed results for patients who underwent halothane anesthesia. Analysis of data for all 20 patients revealed the following.

$$A = 0.93B + 1.00 \quad p \leq 10^{-9} \quad [2]$$

There were 3/16 females with values after surgery that were greater than those before.

Table 2 of Hung and associates provided data on 20 patients undergoing isoflurane anesthesia. Again utilizing values after and before surgery:

$$A = 0.52B + 10.9 \quad p = 0.002 \quad [3]$$

In the isoflurane group, there were no patients in whom the clearance rate was worse after anesthesia as compared with the initial value.

There are likely other factors to consider, such as patient age (50.8, 51.8, 49.0 in the 3 Tables), body weight, initial pulmonary function and past medical history. Hung and associates have provided a service by providing data that will stimulate investigations into the factors involved in the rate of clearance of Tc-99m-DTPA.

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