

Statistical Analysis

Having read and subjected to statistical analysis data in the article "Anesthesia for Twin Delivery" which appeared in *ANESTHESIOLOGY* 19: 515, 1958, we would like to discuss the validity of the conclusions drawn in this article.

No statistical evaluation was performed on the data in this article which attempts to evaluate the influence of anesthesia on mortality of the second twin. Hence, the authors are in the position of suggesting that certain differences are significant without mentioning or calculating the possibility that the differences observed might be due to chance.

Of the five statistical tables only one, table 2, is suitable for statistical analysis, since the others report only percentages, the number of cases in each group not being included. Without knowing the number of cases involved, statistical analysis of the differences is not possible.

In discussing table 2, which presents second twin mortality for six types of anesthesia, the authors state, "the apparent detriment of caudal and epidural anesthesia, as evaluated by mortality rate, could not be explained." Application of the chi square test indicates that the difference between caudal-epidural (13.3 per cent) and cyclopropane (6.8 per cent) is not statistically significant; i.e., that it could be due to normal variation.

Since the other conclusions of the authors are based on data insufficient for us to evaluate statistically, we wonder whether these too have any statistical validity.

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Editor's Note: Dr. John B. Stetson, Children's Hospital, Boston, browses through old books, journals and magazines. On occasion he finds an interesting item. One of these follows:

"Our Foreign Bureau"

HARPER'S NEW MONTHLY MAGAZINE 29: 848
(CXIV, Nov.), 1859

We, in this Bureau, aim to work up such waifs of foreign matter as may escape the lynx-eyes of your daily journals. Can it be that your paragraphists have reported how there is hope at length of staying the fearful ravages of Tetanus, or lock-jaw? Almost an incurable disease hitherto, Dupuytren having declared that out of forty cases he could only hope to save one; Velpeau, on the other hand, announces his ability to save one in three. Yet Velpeau looks distrustfully upon the new remedy, which is nothing less than the virulent poison *Kurare*, which the savages use to make their arrows fatal.

In open Academy the matter has received discussion. In the battle of Magenta it appears that a French sergeant was wounded in the foot by a bullet. The ball broke the bone and remained in the wound. In the hospital of Turin the surgeons succeeded in extracting the ball, the wound healed, and the soldier was discharged as cured. Twelve days after he was brought back to the hospital suffering with the most aggravated symptoms of lock-jaw. Two patients had just expired with the same horrible malady. The case was extreme, and a young surgeon attached to the hospital staff asked permission to make trial of the *Kurare*. Tetanus annihilates all nervous power; the *Kurare* (which is swallowed without harm) has the same effect if applied to a wound. The patient was perfectly rigid when submitted to the care of the surgeon; the wound was reopened and the poison applied. In three quarters of an hour he gained the use of his limbs. Later, rigidity appeared again, and the poison was applied anew. The same result followed; and on repeated relapses, repeated applications were made, until finally the patient was discharged-cured.