

# Letter to the Editor

## Ascorbic Acid and Pentobarbital

### To the Editor

This is in response to a reader's request that a more detailed description be given of a reference used in our drug addiction treatment paper (JOP 6: No. 4, 300-308, 1977).

The reference appeared in a Far East Medical Journal, not readily accessible in most libraries. This 1976 reference is in the **Journal of the Medical Association of Thailand** under the title, "Effect of Various Doses of Ascorbic Acid upon Pentobarbital," by D. Bejrablaya and K. Laumjansook from the Department of Pharmacology of the University's Hospital in Bangkok.

They took 35 rabbits (1.25 to 2.35 kg), divided into 5 groups of 7 each and injected all with 15 mg/kg of pentobarbital solution. In the control group this was all the experimental animals received and the sleeping time in minutes determined. "Sleeping time" was defined as the "period that lapses between the moment the rabbit falls asleep to the time they show signs of awakening. Positive righting reflex is taken as being fully awake."

In the ascorbate-treated groups, the ascorbate at several different levels was injected intravenously, five minutes prior to the pentobarbital injection. The sleeping times were found to be inversely related to the size of ascorbate dosage and at the highest level used, the animals did not fall asleep at all!! The ascorbate rapidly detoxified the pentobarbital.

Control	Sleeping Time of Rabbits			
No Ascorbate	Ascorbic Acid Prior to Pentobarbital			
250 mg	500 mg	750 mg	1000 mg	

ST. Minutes 497±8.1 29.1±9.7 26.7±8.1 227±5.7 0

As we pointed out in our paper, these simple clear-cut results provide clues for the better usage of mega doses of ascorbate in surgery and may give a means of getting surgical patients out of anesthesia so fast that the present lengthy, expensive "recovery room" procedures might be bypassed and eliminated. Mega ascorbate is being used in surgery by more and more surgeons to reduce surgical shock, prevent infections, and aid in healing. We have long advocated preoperative megascorbate preparation for sustained periods before surgery.

In view of ascorbate's great detoxicating powers, the suggestion would be, not to use large doses of ascorbate immediately prior to a surgical procedure. Possibly stop mega intakes 12 hours before surgery. A large dose of ascorbate immediately prior to surgery will require the administration of more anesthetic to achieve the same degree of anesthesia. This goes for both general and local anesthesia.

After the operative procedure is finished, the administration of an intravenous dose of sodium ascorbate of possibly 30 g or more would help to rapidly bring the patient out of the anesthesia. In dental surgery a large dose of ascorbate orally at the end of surgery helps to eliminate the post-operative numbness of the local anesthetic. Continued administration reduces the risk of infection and promotes healing.

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