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(Accepted for publication October 22, 1982.)

Anesthesiology
58:397, 1983

Nalbuphine and Droperidol Combination for Local Standby Sedation

To the Editor:—During the daily practice of anesthesiology, it is not uncommon to be called upon to deliver sedative medications to the patient undergoing therapeutic and/or diagnostic procedures under local anesthesia. These "local standby" anesthetics, as practiced at this institution, consisted largely of intravenous diazepam and a narcotic. An alternative regimen that avoids some of the therapeutic hazards associated with these agents is presented below.

A safe and consistent regimen well-suited for procedures requiring sedation is the combination of 30 mg/70 kg nalbuphine given as a slow intravenous push followed in five minutes by 2.5 mg droperidol, iv. After one hour, an additional 10 mg nalbuphine and 2.5 mg droperidol may be given. This regimen appears to provide superlative sedation with easy arousability associated with minimal respiratory depression. As a side benefit, patients can be expected to remain comfortable for a period of time up to six hours. Minor side effects, including perinasal and perioral pruritis, may be seen, and patients may complain of burning at the iv site if the nalbuphine is given too rapidly.

The nalbuphine/droperidol combination is a logical choice of agents based upon the predictability of side reactions expected from each of these agents. The respiratory depression commonly seen with narcotics is less of a concern with nalbuphine. There is a ceiling respiratory depression seen with nalbuphine at the dosage of 30 mg/70 kg, and corresponds with a mean displacement of the CO₂ response curve of 9.2 mmHg PaCO₂.¹ The degree of sedation expected with a 30 mg/70 kg dosage of nalbuphine is seen under the circumstances as a desirable therapeutic effect.*

* Magruder MR, Christofforetti R, Difazio CA: Balanced anesthesia with nalbuphine hydrochloride. *Anesthesiology Review* 7:25-29, 1980.

The use of droperidol in place of diazepam is based upon the antiemetic properties of droperidol^{2,3} and the small but significant incidence of respiratory arrest associated with intravenous diazepam. If droperidol is administered five minutes after the first administration of nalbuphine, dysphoric reactions that occasionally accompany the use of droperidol appear to be prevented. Further, droperidol enhances the degree of sedation provided by nalbuphine and diminished patient recall can be expected. This dosage regimen has been used with equally adequate results on both alcoholic and non-alcoholic patient populations. One additional benefit is the convenience of avoiding additional paperwork through the use of these non-controlled pharmaceuticals.

In conclusion, the combination of nalbuphine and droperidol appears to provide an adequate, safe alternative to diazepam/narcotic combinations for sedation in procedures performed under local anesthesia.

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(Accepted for publication November 2, 1982.)