

Anesthesiology  
58:487, 1983

### "Self-taming" with Succinylcholine and Muscle Pain

*To the Editor:*—"Self-taming" succinylcholine doses have been reported to reduce fasciculations<sup>1</sup> but not the incidence of succinylcholine-induced myalgia.<sup>2,3</sup>

I studied 50 patients, 20 to 40 years old, ASA class I, undergoing tubal ligation under identical conditions. They were divided into two groups of 25 each as follows: to Group 1, a bolus dose of 100 mg succinylcholine was given; to Group II, a pretreatment dose of 10 mg followed by a bolus dose of 100 mg succinylcholine was given. All patients were ambulatory within 6 to 8 h. Anesthesia was induced in all patients with 250 mg sodium thiopental followed by succinylcholine. Anesthesia was maintained with nitrous oxide and oxygen (70:30%).

Postoperatively, assessment of muscle pain was done by a physician, who was unaware of the drug sequence, using the gradation described by Churchill-Davidson.<sup>4</sup> The results (table 1) are contradictory to the previous reports<sup>2,3</sup> since none of the patients in Group 2 had pain.

R. S. VERMA, M. S., READER  
Department of Anaesthesiology  
J.L.N. Medical College and Hospital  
Ajmer 305001, Rajasthan, India

Anesthesiology  
58:487-488, 1983

TABLE 1. Incidence of Succinylcholine-induced Myalgia (N = 25 each)

	Patients without Pain	Patients with Pain	Severity		
			Mild	Moderate	Severe
Group 1	7 (28%)	18 (72%)	7	9	2
Group 2	25 (100%)	—	—	—	—

### REFERENCES

1. Baraka A: 'Self-taming' of succinylcholine induced fasciculations. *ANESTHESIOLOGY* 46:292-293, 1977
2. Brodsky JB, Brock-Utne JG: Does "self-taming" with succinylcholine prevent postoperative myalgia? *ANESTHESIOLOGY* 50:265-267, 1979
3. Silver JN: Does "self-taming" decrease postoperative myalgia in outpatients? *ANESTHESIOLOGY* 52:98, 1980
4. Churchill-Davidson HC: Suxamethonium (succinylcholine) chloride and muscle pain. *Br Med J* 1:74-75, 1954

(Accepted for publication November 2, 1982.)

### Predicting Painful Venipunctures

*To the Editor:*—Recently, Halden and Uppfeldt<sup>1</sup> have reported the usefulness of a topical anesthetic, a lidocaine-prilocaine cream, in reducing the pain experienced by children when a venipuncture is performed to introduce an iv catheter (ivc). The procedure, however, is time-consuming and requires a dressing. Other clinicians have advocated reassurance or local subcutaneous anesthetic agents which also are time-consuming. It would be helpful to the clinician to be able to identify which patients are at risk for a particularly painful experience so that one of these interventions can be taken. Similarly, it would be useful to the researcher to be able to identify prospectively a specific population sample. Previous work<sup>2</sup> has shown prior memory of dental injection pain can be useful in predicting present experienced pain. We have used a similar method, with adults, for venipuncture pain (ivc).

Twenty-three patients (10 men, 13 women, median age 42.6 years) were seen on a hospital ward as they became available. Only those who were English-speaking and had a clear sensorium were chosen. Consent was obtained in all cases. The patients were asked to

report on a scale of 0-100 (where 0 was no pain and 100 was intolerable pain) their past average venipuncture (ivc) pain. All of the patients had had prior experiences. An experienced iv therapist then introduced, with a minimum of reassurance, an iv catheter (22-through 18-gauge) into the forearm. The patient then was asked to report the pain he experienced.

Median values for past and present pain were 25 and 10, respectively. The product-moment correlation between the two was  $r = 0.86$ ,  $P < 0.00001$ . Four patients reported moderate to severe memories, while only two of them actually experienced moderate to severe pain (>50) (see table 1).

The correlation is high enough to be of use clinically in predicting which patients would definitely require

TABLE 1. Grouped Frequency Distribution of Scores on Pain Scale

	0-25	26-50	51-75	76-100
Past memory	12	7	1	3
Present experience	19	2	1	1

special attention. Whether equally high correlations would occur with children and adolescents remains an object of investigation.

ALLAN BURSTEIN, M.D.  
CYNTHIA VANGA R.N.  
Wemrock Professional Mall  
505 Stillwell Corner Road  
Freehold, New Jersey 07728

Anesthesiology  
58:488, 1983

## REFERENCES

1. Hallen B, Uppfeldt A: Does lidocaine-prilocain cream permit painful insertion of IV catheters in children? *ANESTHESIOLOGY* 57:340-342, 1982
2. Burstein A, Burstein M: Injection pain: memory, expectation and experienced pain. *NY J Dent* 49:183-185, 1979

(Accepted for publication November 2, 1982.)

## Disconnect Alarm Failure

*To the Editor:*—In light of the frequency and potential morbidity associated with anesthesia breathing circuit disconnection<sup>1</sup> and pursuant recommendations that anesthesia ventilators be used in conjunction with patient disconnect alarms,\* I wish to report a case of alarm failure following disconnection between the endotracheal tube adapter and the tube itself.

During the conclusion of coronary artery bypass surgery, with ongoing ventilation utilizing a North American Drager ventilator equipped with a Drager DPM (disconnect pressure monitor) set at 5 cmH<sub>2</sub>O threshold, the breathing circuit (with a 8-mm endotracheal tube adapter attached) became dislodged from the endotracheal tube. The disconnection was subsequently discovered and the circuit reconnected prior to alarm from the oxygen analyzer, but I was curious as to the reason for failure of the disconnect monitor to alarm.

Subsequent trial with endotracheal tube adapters up to size 9-mm revealed adequate resistance to flow from the adapter alone to attain the selected 5 cm H<sub>2</sub>O pressure threshold and prevent the monitor from alarming. Disconnect alarm failure of this type is similar to that

reported by McEwen *et al.*<sup>3</sup> wherein partial "Y" connector occlusion by the patient's pillow occurred, but disconnection and failure of the type described above, by its nature, would seem more likely to recur.

The manufacturer is apparently aware of this shortcoming, and has modified the DPM now available to provide a 7.5 cmH<sub>2</sub>O minimum pressure threshold. This correspondence is intended to alert those still using the earlier model DPM to be aware of this possible failure.

ALAN C. REYNOLDS, M.D.  
Assistant Professor  
Department of Anesthesiology  
Medical College of Wisconsin  
8700 West Wisconsin Avenue  
Milwaukee, Wisconsin 53226

## REFERENCES

1. Cooper JB, Newbower RS, Long CD, McPeck B: Preventable anesthesia mishaps: A study of human factors. *ANESTHESIOLOGY* 49:399-406, 1978
2. McEwen JA, Small CF, Saunders BA, Jenkins LC: Hazards associated with the use of disconnect monitors. *ANESTHESIOLOGY* 53:S391, 1980

(Accepted for publication November 2, 1982.)

\* Emergency Care Research Institute, Anesthesia ventilators. *Health Devices* 8:151-164, 1979.

Anesthesiology  
58:488-489, 1983

## Glycine and the Blood-Brain Barrier

*To the Editor:*—The observations by Ovassapian *et al.* on possible glycine-induced visual disturbances during transurethral resection of the prostate are interesting.<sup>1</sup> However, I disagree with their statement that glycine "readily passes the blood-brain barrier." There are good reasons for the central nervous system to shield

itself from intravascular fluctuations in glycine concentration. This is discussed in reference number 8 of their article.<sup>2</sup> An active transport system keeps the glycine CSF/blood concentration ratio at 0.05, one of the lowest such ratios of all the amino acids.<sup>3</sup> Nevertheless, the observations of Ovassapian *et al.* are valuable and re-