

Anesthesiology  
47:399, 1977

### Unilateral Vocal-cord Palsy

*To the Editor:*—In his letter,<sup>1</sup> Dr. Mass has surmised correctly that the main purpose of my clinical report was to draw to the attention of the practicing anesthesiologists Drs. Ellis and Pallister's recently published suggestion of a possible mechanism for unilateral vocal-cord palsy following endotracheal intubation. To develop a scientific treatise on the basis of a single case would have been presumptuous on my part, and to be criticized for the lack of depth of discussion attending such a presentation is preposterous. Having reported Drs. Ellis and Pallister's interesting anatomic findings, which hitherto had not appeared in any anesthesia publication that I could find, I merely suggested some possible ways to avoid a poorly understood complication of modern anesthesia. The recommendations were taken from investigations conducted by Stanley and his co-workers into factors that contribute to increased intra-cuff pressures. In my opinion Dr. Mass "doth protest too much."

Anesthesiology  
47:399-400, 1977

### Sensitivity Reaction—Chymopapain vs. Radiographic Dye

*To the Editor:*—In their report, Watts *et al.* conclude that the sensitivity reactions observed in four patients were due to chymopapain.<sup>1</sup> Although they mention that the radiographic dye (Renografin-76), also used, may have contributed to the sensitivity reaction, they tend to minimize this possibility because none of the patients had received contrast agents prior to this exposure. I believe that it is possible that the reactions reported were caused by entrance of radiographic dye into the systemic circulation, particularly when the dye is administered just prior to chymopapain.<sup>2,3</sup> Watts *et al.* suggest that chymopapain may induce "rapid hydrolysis of intradiscal protein-mucopolysaccharide complexes [which] might release into the blood-stream substances capable of triggering an acute anaphylactic reaction." Such an event may also permit easy entry of radiographic dye into the systemic circulation.

That none of the patients had previously received contrast agents intravenously does not exclude the dye as the culprit. It is well established that severe reactions to contrast media will occur in patients never previously injected with radiographic agents.<sup>4</sup> It is also known that small amounts of dye can precipitate sudden, severe reactions to contrast

Dr. Ellis, on the other hand, makes a very interesting and important observation when he suggests the possibility that vocal-cord palsy is present preoperatively, albeit asymptotically. The first time an anesthesiologist sees the vocal cords usually follows the administration of a paralyzing dose of a neuromuscular blocking agent, however, and consequently such lesions are readily missed.

MAX MINUCK, M.D.  
*Anesthesiologist*  
8408-A North Central Avenue  
Phoenix, Arizona 85020

#### REFERENCE

1. Mass L: Unilateral vocal-cord paralysis. *ANESTHESIOLOGY* 46: 374, 1977

(Accepted for publication June 3, 1977.)

media.<sup>5,6</sup> One patient reported by Watts (case 4) required treatment with large volumes of fluid. This has also been associated with reactions to contrast media.<sup>7,8</sup> While chymopapain may well be a precipitating agent for a sensitivity reaction, one cannot presume that it is the cause when it is administered together with a radiographic contrast medium.

RONALD KAPLAN, M.D.  
*Resident*  
*Department of Anesthesiology*  
*University of Maryland Hospital*  
*Baltimore, Maryland 21201*

#### REFERENCES

1. Watts C, Williams OB, Goldstein G: Sensitivity reactions to intradiscal injection of chymopapain during general anesthesia. *ANESTHESIOLOGY* 44:437-439, 1976
2. Ansell G: Adverse reactions to contrast agents. *Invest Radiol* 5:374-391, 1970
3. Witten DM: Reactions to urographic contrast media. *JAMA* 231:974-977, 1975
4. Lasser EC: Basic mechanisms of contrast media reactions: Theoretical and experimental considerations. *Radiology* 95: 63-65, 1968
5. Schatz M, Patterson R, O'Rourke J, et al: The administration of radiographic contrast media to patients with a history of

- a previous reaction. *J Allergy Clin Immunol* 55:358-366, 1975
6. Fischer HW, Doust VI: An evaluation of pretesting in the problem of serious and fatal reactions to excretory urography. *Radiology* 103:497-501, 1972
7. Viner NA, Rhamy RK: Anaphylaxis manifested by hypotension alone. *J Urol* 113:108-110, 1975

Anesthesiology  
47:400, 1977

*To the Editor:*—Kaplan erroneously states that we "concluded that the sensitivity reactions observed in four patients were due to chymopapain." We mentioned that the radiographic contrast agent (Renografin-76) might have been responsible. However, this is not likely. In 2,000 patients undergoing discography (with Hypaque-50), two cases of sensitivity reactions were found, for an incidence of 0.1 per cent.<sup>1</sup> In both cases, the agent was improperly placed into the epidural space, which is much more vascular than the intervertebral disc. Renografin-76 contains 37 per cent iodine, while Hypaque-50 contains 30 per cent. Sensitivity reactions occurred in 207 of 13,700 patients undergoing chemonucleolysis with chymopapain, a 1.5 per cent incidence.<sup>2</sup> While absolute proof that chymopapain (in some cases with contrast agent) is the etiologic factor is lacking, we know of no case of a sensitivity reaction occurring during a properly performed discogram. Regardless of the etiology of the sensitivity reactions, the treatment should include oxygenation, steroids, cautious use of vasoconstrictors, and sufficient quantities of intravenous fluids.

8. Obeid AI, Johnson L, Potts J, et al: Fluid therapy in severe systemic reaction to radiopaque dye. *Ann Intern Med* 83: 317-320, 1975

(Accepted for publication June 3, 1977.)

CLARK WATTS, M.D.  
*Professor, Department of Surgery and  
Chief, Section of Neurosurgery  
University of Missouri  
Columbia, Missouri*

O. B. WILLIAMS, M.D.  
*Attending Anesthesiologist*

GORDON GOLDSTEIN, M.D.  
*Attending Anesthesiologist  
Department of Anesthesia  
Texas Southwestern Medical School  
Dallas, Texas*

#### REFERENCES

1. Collins HR: An evaluation of cervical and lumbar discography. *Clin Orthop* 107:133-138, 1975
2. Watts C: Complications of chemonucleolysis for lumbar disc disease. *Neurosurgery* 1:2-5, 1977

(Accepted for publication June 3, 1977.)