

Anesthesiology
68:823, 1988

More on Eliminating CT Scan Artifact due to Endotracheal Tubes

To the Editor:—Dr. Tashiro *et al.*¹ describe an effective approach to eliminating the artifact attributable to the radiopaque marker of endotracheal (ET) tubes used during cervical computed tomography (CT) scans. While we support their recommendation that an ET tube without a radiopaque marker be used to improve the quality of CT scans, their approach, which uses modified esophageal stethoscopes, is complex; it includes elution of the plasticizer, precludes the use of cuffed tubes in those instances where they might be helpful, and offers a very limited size selection.

For several years in our institution, we have been using plain, polyvinylchloride (PVC) ET tubes (*e.g.*, without barium stripe, radiopaque marker, or lettering) during laser surgery with a helium-oxygen protocol because the barium sulfate-stripped and lettered ET tubes have a lower ignition temperature.² In this country, plain PVC ET tubes are readily available (Mallinckrodt Critical Care; Sheridan Catheter Corporation) in a vari-

ety of sizes, cuffed or uncuffed, and are comparable in price to the esophageal stethoscope.

NIKOLAUS GRAVENSTEIN, M.D.

Assistant Professor in Anesthesiology and Neurosurgery

ANNETTE G. PASHAYAN, M.D.

Assistant Professor in Anesthesiology and Neurosurgery

*Departments of Anesthesiology and Neurosurgery
University of Florida College of Medicine
Gainesville, Florida 32610-0254*

REFERENCES

1. Tashiro C, Yagi M, Kinoshita H: Use of an endotracheal tube without radiopaque marker for cervical CT-scans. *ANESTHESIOLOGY* 67:1022, 1987
2. Pashayan AG, Gravenstein JS: Helium retards endotracheal tube fires from carbon dioxide lasers. *ANESTHESIOLOGY* 62:274-277, 1985

(Accepted for publication January 25, 1988.)

Anesthesiology
68:823-824, 1988

History of Conjoined Twins

To the Editor:—The recent review of the perioperative management of conjoined twins¹ contains much fascinating information about this rare anomaly. However, it incorrectly states: "In 1100 A.D., the earliest known written record of conjoined twins was made in Latin of the Biddendon girls, born in England . . .". Actually, a case of "Siamese" twins occurring in tenth-century Byzantium is mentioned in the manuscripts of several chroniclers, and a summary (including illustrations) has been published.² The translated text of one of the authors reads:

During these days [945 A.D.] a monster from Armenia appeared in the City [Constantinople]. There were two boys born of one pregnancy, fully grown, with all members complete, connected together from the Umbilic down to the lower abdomen, in a position face to face. They resided for a long time in the City and were admired by everybody as a curiosity but later were exiled because it was believed that they were a bad omen. After some time, during the reign of King Constantine, they returned. When

one of the twins died skilled doctors separated them cleverly at the line of connection with the hope of saving the surviving one but after living three days he died also.

This is not only an early recorded case of conjoined twins, but apparently is the first attempt at surgical separation. It is interesting to note that a similar case of xiphopagus twins died a few years later in 963 A.D. at the age of 25.³ It was not until the late 17th century that Koenig performed the first successful separation of conjoined twins.

MARK A. ROCKOFF, M.D.

Associate Director

Multidisciplinary Intensive Care Unit

Associate Professor of Anesthesia (Pediatrics)

Harvard Medical School

The Children's Hospital

300 Longwood Avenue
Boston, Massachusetts 02115

REFERENCES

1. Diaz JH, Furman EB: Perioperative management of conjoined twins. *ANESTHESIOLOGY* 67:965-973, 1987

Anesthesiology
68:824, 1988

In Reply:—We appreciate Dr. Rockoff's additional references on the history of conjoined twins.^{1,2} Apparently, there have been many reports and illustrations of conjoined twins throughout recorded history. Undoubtedly, more records documenting conjoined twinning are likely to be discovered.

The literature search for our recent review on perioperative management of conjoined twins included only English language clinical journals, and not historical or foreign language publications as cited by Dr. Rockoff.¹⁻³ Some conjoined twin reports (*e.g.*, the Bidendon's, the Bunker's, and Koenig's separative surgery) have received more publicity in the clinical literature than others, and are often referenced.⁴⁻⁶ Other written and oral reports on conjoined twins may have gone unnoticed, or, when passed on orally, resulted in the creation of mythological idols, like Janus, or stories about two-headed monsters.⁷ Since *ANESTHESIOLOGY* is a clinical journal, our historical section on conjoined twins was intentionally brief and served only to introduce our main theme, perioperative management of conjoined twins.

JAMES H. DIAZ, M.D.

*Departments of Anesthesiology and Pediatrics
Ochsner Clinic and Alton Ochsner Medical Foundation
New Orleans, Louisiana
Tulane University School of Medicine
New Orleans, Louisiana*

2. Pentogalos GE, Lascaratos JG: A surgical operation in siamese twins during the tenth century in Byzantium. *Bull Hist Med* 58:99-102, 1984
3. Baudouin M: Les monstres doubles autositaires opérés et opérables. *Rev Chir* 25:546, 1902

(Accepted for publication January 25, 1988.)

ERIC B. FURMAN, M.B., B.CH.

*Department of Anesthesiology
Children's Orthopedic Hospital & Medical Center
Seattle, Washington
University of Washington School of Medicine
Seattle, Washington*

REFERENCES

1. Pentogalos GE, Lascaratos JG: A surgical operation in Siamese twins during the tenth century in Byzantium. *Bull Hist Med* 58:99-102, 1984
2. Baudouin M: Les monstres doubles autositaires operes et operables. *Rev Chir* 25:546, 1902
3. Diaz JH, Furman EB: Perioperative management of conjoined twins. *ANESTHESIOLOGY* 67:965-973, 1987
4. Towey RM, Kisia AKL, Jacobacci S, Muoki M: Anaesthesia for the separation of conjoined twins. *Anaesthesia* 34:184-192, 1979
5. Luckhardt AB: Report of the autopsy of the Siamese twins with other interesting information covering their life: A sketch of the life of Chang and Eng. *Surg Gynecol Obstet* 72:116-125, 1941
6. Filler RM, Crocker D: Conjoined twins, *Pediatric Surgery*, 3rd edition, Vol. 2. Edited by Ravitch MM, Benson CD, Aberdeen E, Randolph JG. Chicago, Year Book Medical Publishers, Inc., 1979, pp 804-814
7. Golladay ES, Williams GD, Seibert JJ, Dungan WT, Shenefelt R: Dicephalus dipus conjoined twins: A surgical separation and review of previously reported cases. *J Ped Surg* 17:259-264, 1982

(Accepted for publication January 25, 1988.)