

sure and abating with endarterectomy. They pointed out that bilateral asterixis may be a sign of global encephalopathy whereas unilateral asterixis indicates contralateral hemispheric dysfunction. We would like to contribute a case of subcortical infarction manifested by unilateral asterixis coupled with mild hemiparesis.

Report of a Case.—An 83-year-old woman was in good health until 24 hours before admission when she noted sudden light-headedness and left-sided weakness. She was brought to the hospital where neurological examination showed normal mental status, fluent speech, and mild left-sided face and arm weakness. Sensory examination was normal. Reflexes were increased on the left, and asterixis was present as well.

A blood chemistry study using an automated multiple analysis system was normal. Computerized tomography showed an infarct involving the genu and anterior part of the posterior limb of the internal capsule and surrounding thalamus on the right (Figure).

Comment.—In this case a discrete capsular lesion gave rise to unilateral asterixis and mild hemiparesis. This certainly supports the concept of unilateral asterixis suggesting focal disease.^{1,3}

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1. Young RR, Shahani BT: A new sign of minimal motor dysfunction. *J Postgrad Med* 21:18, 1975.
2. Young RR, Shahani BT, Kjellberg RJ: Unilateral asterixis produced by a discrete CNS lesion. *Trans Am Neurol Assoc* 101:306-307, 1976.
3. Tarsy D, Lieberman B, Chirico-Post J, et al: Unilateral asterixis associated with a mesencephalic syndrome. *Arch Neurol* 34:446-447, 1977.

Management of Spontaneous Esophageal Rupture

To the Editor.—In addition to provoking less fanciful observations, THE JOURNAL article "Nonsurgical Management of Spontaneous Esophageal Perforation" (240:140, 1978) conjures up a vision of George Santayana strolling the Elysian fields with Hermann Boerhaave and consoling him because the lessons of history are so often ignored. Although this is a defect of the human condition to which I too am prone, nevertheless the article raises substantive questions about patient care that warrant discussion.

In the first place—a trap for those who have time only to scan titles—the crux of this patient's successful management was closed thoracotomy with tube drainage of the empyema, a procedure that hardly qualifies as nonsurgical. Furthermore, unex-

plained bilateral pleural effusion in a patient who vomited after a big meal and then had development of chest pain, dyspnea, and fever might reasonably suggest ruptured esophagus. The various laboratory studies done on both effusions would cost \$66 in my hospital and did not prove helpful. On the other hand, simple measurement of the pleural fluid pH with test paper might have established the diagnosis more promptly and for a pittance.² Again, abdominal pain and the absence of shock and of mediastinal air were considered to obscure the diagnosis. In point of fact—as I have learned (and relearned) to my personal chagrin—this situation is not uncommon except with the classic catastrophic ruptures. And the hazards attending the uncritical use of numbers are clearly shown in the survival data cited: 45% of patients treated with esophageal repair survived compared with 52% of those treated with chest drainage alone. Does this mean that drainage is preferable to repair? Finally, the Celestin tube has proved a valuable tool in the management of tardily diagnosed esophageal rupture,³ and its use might well have been considered in the present instance.

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1. Derbes VJ, Mitchell RE Jr: Hermann Boerhaave's *Atrocis, nec Descripti Prius, Morbi Historia*: The first translation of the classic case report of rupture of the esophagus, with annotations. *Bull Med Libr Assoc* 43:217-240, 1955.
2. Dye RA, Laforet EG: Esophageal rupture: Diagnosis by pleural fluid pH. *Chest* 66:454-456, 1974.
3. Berger RL, Donato AT: Treatment of esophageal disruption by intubation: A new method of management. *Ann Thorac Surg* 13:27-35, 1972.

In Reply.—We offer the following response to Dr Laforet. First, the literature pertaining to Boerhaave's syndrome is often confusing with respect to the term "surgical." Many authors define this as operative repair of the esophagus, while others define it as chest-tube drainage even without surgery. As indicated in our first paragraph, we think that chest-tube drainage is, in the broadest sense, "surgical," although our title was worded specifically to emphasize the nonoperative aspect of management in this case. Second, we agree that pleural fluid pH measurement may be useful. However, it certainly would not have obviated the other pleural fluid studies. Third, as stated, an important source of confusion in the diagnosis in this case was the variability of the location of the patient's pain, possibly attributable to the patient's behavioral disorder. The absence of shock and mediastinal

air and the presence of intermittent complaints of right lower quadrant pain diverted our attention from the correct diagnosis for four days. Finally, the data in question were chosen to demonstrate that chest drainage, with or without esophageal repair, is unequivocally beneficial. As we note, drainage without repair is preferable only when esophageal rupture is diagnosed late in a stable patient.

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Venipuncture and Cardiac Arrest

To the Editor.—I endorse all of the comments of Reuben Tizes, MD, on the subject of cardiac arrest occurring during venipuncture (240:213, 1978), as I had the misfortune of witnessing one myself recently. The patient was one of our own laboratory technicians who had given blood on several occasions as a control in various studies in our department. He insisted that he give the blood lying on a couch, since he is extremely prone to fainting. While drawing blood he said to me that he was "fainting" and that I should terminate the phlebotomy. I did not withdraw the needle but stopped drawing on the plunger in the hope that the fainting episode would subside in a few seconds and I would be able to resume the procedure. However, as he looked extremely pale, I felt his pulse and detected extreme bradycardia (approximately 20 beats per minute, although an exact counting was not done as things evolved rather rapidly). Within a few seconds, he turned his head to the side and stared vacantly toward the right side and was nonresponsive. At this point he had no pulse, and I immediately withdrew the needle. I gave him two successive thumps over the precordium. When this did not revert the rhythm, I started external cardiac massage, after which measure the pulse resumed at a slow pace. At this point he was also apneic, and I proceeded with mouth-to-mouth breathing. Shortly afterward his breathing also resumed. Urinary incontinence was also noted.

My impression was that this subject had sustained a Adams-Stokes attack in view of the facts that he exhibited signs of cerebral anoxia and had been pulseless for a brief period. As I had no means of monitoring his heart rate, I can only assume that he had either a cardiac asystole or an

episode of ventricular fibrillation. This case surely meets all the criteria for cardiac arrest. On later questioning, the subject admitted to fainting after almost all occasions of blood donation, but also on one occasion he actually had convulsions. Thus, this case appears to be a reproducible case of a severe form of vasovagal attack that actually culminates in cardiac arrest.

I think the medical profession must be made aware of such idiosyncratic cases, as every precautionary measure can then be taken to cope with such an emergency. Such subjects should never receive venipuncture by a phlebotomist unless qualified medical personnel are actually at the site.

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Threshold Theory vs Linear Theory

To the Editor.—Certainly inclusion of the article "Toward Less Hazardous Cigarettes: Current Advances" (240:1255, 1978) is appropriate for a publication such as THE JOURNAL. I do not believe it necessary, therefore, to apologize for its inclusion. (Or was the editorial "Smoke Screens" an apology for its delay in inclusion?)

Certainly the reminder of the tangled web that politics weaves with regard to this article is of interest. I doubt that this comes as a surprise to any of the readers and serves only to strengthen the wish that government and politics have as little to do in medicine as possible.

Dr Barclay's comments (240:1271, 1978) with regard to the threshold theory vs linear theory of toxic action are interesting. I for one am not as certain that most scientists believe in the linear theory. Certainly our goals of environmental protection for various toxic substances are often thresholds for whatever reason. Various agencies—both governmental and private—spend a lot of money determining thresholds for just about every toxic (or even nontoxic) substance imaginable. (Truthfully, many of these are designed to protect various interests.) It is not, then, so surprising that similar techniques be applied to this special interest.

I for one (as I continue to tell my patients not to smoke) am unwilling to embrace or refute the concept of a less hazardous cigarette, but I do believe I might assist my patients who are unable to break the habit in choosing what might be a lesser evil,

at least until further information with regard to potential additional toxins in cigarette smoking is available.

Certainly, if the linear theory is all-inclusive, I will have to relearn my toxic-therapeutic ratios, and I have a friend who will have to find some other way to appease his coronaries other than with two aspirin and a nightcap.

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Time Stood Still

To the Editor.—A brief note in MEDICAL NEWS (240:1218, 1978) suggests that the turn-of-the-century concoction for epilepsy based on the after-birth of a woman was devised by physicians of the day who were testing their creativity. On the contrary, in 1676 Salmon¹ (undoubtedly not the originator) discussed the medicinal use of "the secundine and the navel string" as follows:

A Drop or two of the Blood of the Navel String . . . prevents the Falling-sickness, Convulsions, and all other Fits . . . The Secundine calcin'd, and given in Southern-wood Water . . . every Day half an Ounce, while the Moon decreases in Light (and if possible in Motion too) wonderfully cures Struma's, or the Kings-Evil, and the Falling-sickness [epilepsy].

More than 225 years without a single, randomized, clinical study with an adequate control?

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1. Salmon W: *New London Dispensatory*. London, 1676, p 170.

Use of Antibiotics in Respiratory Infection

To the Editor.—The article by Greenberg et al entitled "Physician Opinions on the Use of Antibiotics in Respiratory Infections" (240:650, 1978) concerned itself with the management of 18 common respiratory infections in infants. The discrepancy in the use of antibiotics by family physicians compared with that of specialists in pediatric infectious disease (ID) is obvious. In 14 of 18 situations, 75% or more family physicians elected to use antibiotics. There were no circumstances when 75% of family physicians agreed not to use antibiotics. In four of 18 situations, antibiotics were used by 75% of ID specialists, while in three of 18 situations,

75% thought antibiotics were not indicated.

This discrepancy generated the question in our minds, as residents, as to what our antibiotic use would be in these situations. Shortly after the study was published, all second- and third-year family practice residents of Roanoke Memorial Hospitals were given a questionnaire with the same 18 clinical situations and directions on how to answer them properly. All but one stated no prior knowledge of the article by Greenberg and associates, and a majority of the questionnaires were returned within 24 hours. Twenty of 24 residents responded. There were eight of 18 situations where 75% of the residents were in agreement. Six circumstances were the same as the ID specialists (No. 1, 2, 6, 11, 17, and 18). In one situation, No. 8, our residents opted not to treat (75%), while 76% of ID specialists elected to use antibiotics. In question 16, seventy-five percent of the residents and 70% of the ID specialists agreed to treat. In most other situations, the responses of the residents simulated those of ID specialists.

From our survey we conclude that our training and perspective toward the use of antibiotics are considerably different from those who are practicing primary care. Will our opinion on the use of antibiotics change after years of practice, or will residency training continue to influence our choice? The answer to these and similar questions may prove useful toward the justification of family practice residencies and their goal of providing well-trained primary care physicians.

We thank Dr Greenberg and associates for allowing us to use their questionnaire in conducting our survey.

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CORRECTION

Cardiac Exercise Program.—In the Oct 6 issue of THE JOURNAL (240:1588, 1978), the first sentence of the second paragraph in reply to the LETTER TO THE EDITOR entitled "Cardiac Exercise Program" should state as follows: "With regard to types of anaerobic activities, we do not use 'short bursts' of such in our session."