

Letters

Carbarsone Toxicity

To the Editor:—It is interesting to have the report of carbarsone toxicity from Drs. H. J. Schwartz and H. Y. Donnenfeld (LETTERS, JAMA 191:678 [Feb 22] 1965). Toxic reactions to carbarsone have fortunately been few, in spite of the long-continued use of carbarsone for the treatment of amebiasis.

It would appear that the cases reported by Schwartz and Donnenfeld were clearly due to overdosage. When we introduced carbarsone for the treatment of amebiasis (JAMA 99:195-199 [Jan 16] 1932), we recommended that the dosage be 75 mg/kg of body weight in divided amounts over at least a ten-day period. We said: "Practically, this dosage amounts in the average adult to 0.25 gm twice daily for ten days." We cautioned specifically against using carbarsone in amoebic hepatitis, or in amounts that might cause symptoms or arsenic toxicity. We reported the minimal single lethal doses of carbarsone administered orally to be 150 mg/kg in guinea pigs, 200 mg/kg in rabbits, and from 200 to 250 mg/kg in cats. On repeated oral administration of carbarsone in a wide series of animals, including monkeys, 50 mg/kg daily for ten days caused no toxic symptoms, and there was no evidence of tissue injury on microscopic examination of the animals killed at this time.

We had cautioned about the possibility of carbarsone producing injury to the optic tract, since Young and Loevenhart had observed such injury in pentavalent arsenicals containing an amino group or substituted amino group in para position to the arsenic atom (J Pharmacol Exp Ther 23:107, 1924). It is interesting that no significant reports have appeared on injury to the optic tract as a result of using carbarsone for the treatment of amebiasis.

It should also be pointed out that in one of the cases reported by Schwartz and Donnenfeld, emetine had been used in addition to carbarsone. Emetine is a relatively toxic alkylloid, and is slowly excreted with resulting accumulation. There is experimental and clinical

evidence of injury to the heart from therapeutic doses of emetine, but there is no evidence that emetine can cause serious cerebral disorder.

The comment by the editor in connection with the letter of Schwartz and Donnenfeld is important in calling attention to the weight factor in the patients reported. Certainly in both reported cases, the amount of carbarsone administered was greatly in excess of what had been clearly recommended on the basis of solid experimental and clinical evidence a third of a century ago.

CHAUNCEY D. LEAKE, PhD  
San Francisco

Medical Typists' Course

To the Editor:—Would you like to have a secretary who—

Thinks like a man,  
Acts like a lady,  
Looks like a model,  
But works like a dog?

This anonymous motto has been adopted by the Medical Typists' Course, a program designed to give physicians better-trained medical secretaries. The lengthy transitional period from general secretary to qualified medical secretary is unfair to both employer and employee. Let's do something about it!

This problem is with us for a very good reason: Who is training the medical secretary? Almost no one. People within the medical profession are too busy to lend a hand here; people outside the medical profession don't know how. The responsibility actually lies with business teachers, but very few want to attempt material for which they themselves had no training.

On May 15 an educational forum on "Teaching the Medical Typists' Course" will be held at the Medical College of Georgia. Educators from vocational schools, large high schools, YWCA's, business schools, colleges, and hospitals are invited to attend. This forum will be followed up by a one-week teacher-training program in the summer.

The Medical Typists' Course includes all the subjects that seem necessary to turn out a finished product in this field: medical terminology, medical typing, speed typing, dictating machine transcription, and business English, etiquette, and dress. This course is the result of eight years of experimentation between Augusta Vocational School and the medical profession in the Savannah River Area. The

Medical Association of Georgia has appointed a committee to assist in piloting this course in other schools in Georgia next September.

If you would like the course set up in a school near you, contact the administrator in that school and ask him to bring a prospective teacher to the forum. If your own secretary needs further training but has no time for classroom instruction, her needs can be met by the correspondence course. For further information, write P.O. Box 3716, Augusta, Ga.

MRS. FRANCES W. EDMONDSON  
Author, Medical Typists' Course  
Augusta, Ga

Official Autopsy Report on President Kennedy

To the Editor:—I read with dismay in the Feb 15, issue of THE JOURNAL, and subsequently in our free press, that officials have not disclosed any information about President Kennedy's adrenals (LETTERS, JAMA 191:502). Can the "officials," whoever they are, deny the right of the electorate to know whether the adrenals significantly altered the President's health or the nation's history? It is my belief that the complete findings at postmortem of a martyred president are public property.

We hear much today from Washington about "managed news" and "planted news." Now we have "no news," and this is worse, because we are left with nothing in history from which to make a start in understanding the problem. We should at least have the right to know who the undisclosers are.

MD, New Jersey

On Nov 10, 1964, an inquiry was addressed to R Adm E. C. Kenney, Chief, Bureau of Medicine and Surgery, US Navy, asking for "any information as to the autopsy findings on the adrenal glands and, if possible, a complete protocol of the autopsy findings for future reference."

The request was forwarded to the White House Physician, R Adm George G. Burkley, MC, USN, to whom complete protocol had been submitted by the Navy pathologists and from whose office the official report, lacking mention of the adrenals, had been released to the nation. THE JOURNAL waited three months for pertinent information regarding the adrenals; received none.—Ed.

JAMA 92:63, 1966

### President Kennedy and Addison's Disease

*To the Editor:*—Dr. John Nichols presents a convincing argument (201:115, 1967) that the late President John F. Kennedy suffered from Addison's disease and was the third of three cases in the paper by Nicholas et al.<sup>1</sup> After giving strong circumstantial evidence in support of his hypothesis, he attempts to show that it is logically impossible for the late President not to have had Addison's disease. This is circular reasoning.

Dr. Nichols says:

It is most unlikely that two persons with the same age and clinical history of the late President would have undergone similar surgery in the same hospital on the same day and returned on exactly the same time four months later for removal of the plates. If so, Nicholas et al would have illustrated their paper with four cases instead of three.

Dr. Nichols uses the above argument to prove that Nicholas' third case could have been none other than President Kennedy. This argument is circular because it assumes what it attempts to prove, that President Kennedy had Addison's disease. If two patients of the same age and the same clinical history had been admitted to the same hospital on the same dates, one with Addison's disease and one without (the latter, for the purposes of this argument, President Kennedy), Nicholas would not have had a fourth case because he was writing only about surgery in Addisonians.

Dr. Nichols has tried to use logic to show that the circumstantial evidence he has given proves conclusively that President Kennedy had Addison's disease. The circumstantial evidence is splendid; the logic is less so.

NEIL A. KURTZMAN, MD  
Dallas

1. Nicholas, A., et al: Management of Adrenocortical Insufficiency During Surgery, *Arch Surg* 71:737-742 (Nov) 1955.

*To the Editor:*—Following publication I have received 38 unsolicited letters from lay persons, apparently based on newspaper articles, many enclosing clippings. Twenty were anonymous and hostile! The other 18 were complimentary and signed.

Reprint requests have been mostly from practitioners, not associated with institutions. Only a few have been on preprinted request cards. Of the 125 requests, nine are two-

page letters from former interns and residents who had been clinically associated with the Kennedy case some time previously. Others were from eminent authorities, one of whom says he was at one time Kennedy's personal physician. All agree with the diagnosis. No adverse criticism has been received from a physician.

JOHN NICHOLS, MD  
Kansas City, Kan

*The Journal has received only a few comments, one from a technician, only indirectly related to the Kennedy case. A complimentary note was received from Ronald F. Garvey, MD, of Dallas, and another physician expressed the view that the Kennedy adrenal glands were privileged to the family, and not subject to public curiosity. Oscar W. Hafke, MD, of Fort Worth, Tex, said, "The pathological reports on the President's death are adequate. There is no need to be rehashing this situation at such late date; it will accomplish nothing."—Ed.*

### Metal Sensitivity and Duodenal Ulcer

*To the Editor:*—Recently I have been impressed with a series of cases in which the presenting complaint was the common problem of metal sensitivity. These patients are for the most part sensitive to nickel, which is alloyed into a large number of metallic products which contact the skin, eg, jewelry, buckles, garters, and snaps. I have been impressed by the considerable number who have a history of active or healed duodenal ulcer (x-ray-proven). Whether this observation is true to the point of being able to withstand controlled study is difficult to say. Since our knowledge of the pathogenesis of duodenal ulcer is incomplete, conjecture regarding something more than a coincidence between the metal sensitivity and the ulceration could be useful and worthy of presentation.

Cross sensitivity reactions between contact dermatitis of the skin and the mucosa have been demonstrated, as in acrylic dermatitis due to dentures. Whether this mucosal sensitivity analogy might be extended to the mucosa of the intestinal tract is a question. Cross sensitivity between nickel dermatitis and those due to chromium and cobalt have been demonstrated. Other metals which might be considered are iron, copper, manganese, and zinc. It would seem possible that metallic irritation of a predisposed area

of intestinal mucosa in a predisposed individual could lead to a widening of resistance to the propeptic digestion. Whether or not ulceration of the skin from chromate, or probably due to chromate, or irritation of the nasal mucosa by chromic acid fumes in industry any bearing in this matter at points.

Hyperhidrosis is a frequent accompaniment in patients with metal dermatitis, perhaps with the sweat glands as a leaching agent. This is probably due to overactivity of the sympathetic nervous system as another common denominator between changes and peptic ulcer.

Undoubtedly the first step is to determine whether there is an actual increase in duodenal ulceration in patients with dermatitis.

BARTON L. L.  
Colorado Springs

### Cyanoacrylate Tissue Adhesives

*To the Editor:*—The "Cyanoacrylate Tissue Adhesive" (201:195, 1967) deserves credit. Experimental observations demonstrated a dichotomy between the alkyl-2-cyanoacrylates and their local toxicity. The methyl and ethyl esters are locally toxic, while the higher homologues, such as n-pentyl, n-hexyl, and n-octyl, are not. We did not report that the methyl homologues proceed to the homologous histotoxicity decreases," but showed that the methyl homologues were logically toxic whereas the decyl homologues were not. The latter two materials showed similar responses.

In regard to rates of polymerization, these rates can be varied by any monomer. They are dilated to purity of the monomer, face area exposed to catalyst, and effective catalyst concentration. These factors are inversely related to concentration of acidic instances. These factors, purity of the monomer, concentration, and polymerization time. Thus fact that rate of polymerization of a monomer is a function of the monomer's experimental batch of a monomer's experimental clinical acceptability.

It is stated that "high molecular weight monomers have disadvantage over the methacrylate, namely, slower curing." Recalling that non-removable sutures are chosen over