

The Journal of the American Medical Association

Published Under the Auspices of the Board of Trustees

VOL. LXIX, No. 24

CHICAGO, ILLINOIS

DECEMBER 15, 1917

THE CAUSATION AND CURABILITY OF CERTAIN LONG-STANDING ALBUMINURIAS*

DAVID RIESMAN, M.D.
PHILADELPHIA

During the past few years a number of cases of albuminuria have come to my notice in which investigation showed the existence of a local focus, the removal of which led to the disappearance of the albuminuria. Thanks to the work of Billings and his school, we know the importance of foci of infection in the production of systemic disease. It is of interest to note that as early as 1802 Benjamin Rush pointed out in a letter the relation between systemic disease and caries and abscess of the teeth.

That severe local infections, such as ulcerative endocarditis, tonsillitis, and, indeed, most other acute infections, are capable of producing nephritis of the parenchymatous type, is of course a long-established fact. With this form of nephritis, which is an immediate result of the acute toxemia, I am not dealing. The type to which I desire to call attention is entirely devoid of acute features, and has all the earmarks of chronic renal disease. We know how futile is the attempt in the majority of such cases to remove the albumin from the urine by means of drugs or by diet.

These insidious albuminurias are often found in apparently healthy men who, in full confidence, apply for life insurance, only to be refused temporarily or permanently, because of the trace of albumin in the urine. Among adolescent subjects some cases have been classed as cyclic, orthostatic or postural albuminuria, a condition that as yet has no very satisfactory explanation. These cases are rather easily recognized. They give, as Barker and Smith¹ have shown, normal phenolsulphonephthalein outputs, and in other ways behave as cases of a nonprogressive type of renal irritation. Apparently the worst that can be said of them is that they bar the patient from life insurance.

While many cases of albuminuria of slight degree and springing from no obvious cause are due to early interstitial nephritis, there are some in which a careful search reveals a disease focus that stands in etiologic relation to the albuminuria. Let me illustrate this by a few examples:

CASE 1.—J. J. H., a boy, aged 9 years, came under my care because of poor and capricious appetite and general lack of vitality. He had been a difficult "feeding case" as an infant, but had not had any special diseases. From birth he

was sensitive to protein, particularly egg protein, which caused hives, as his mother said, "almost before he swallowed it." Once he passed a little gravel. The tonsils and the cervical glands were enlarged, but the boy was not a mouth breather. There was also some enlargement of the spleen. The urine was very scanty, and for a year or more had contained a small amount of albumin and occasionally hyaline and granular casts. There was no edema. All manner of treatment was tried without producing any marked changes in the urine either in quantity or in quality.

Although the boy had never had a genuine attack of tonsillitis, I thought it best to have the tonsils removed, since they looked unhealthy. They were extirpated under ether, April 1, 1913, nearly two years after the discovery of the albuminuria. Both tonsils were found to contain cheesy masses, and in one there was an abscess. There was also a large adenoid. The second specimen of urine examined after the operation was free from albumin. Then, for a little while traces reappeared; but at the end of about six months both albumin and casts had entirely vanished. The appetite at present leaves nothing to be desired, and the lad is one of the finest and most agile of his age.

CASE 2.—A man, aged 42, a veterinary surgeon, came under my observation in 1913, stating that for years he had had pain in the right lower abdomen, which had sometimes been looked on as appendicitis, sometimes as renal colic. He had never passed blood or gravel, and only once—for about a week in 1911—he had passed pus. He had become more or less reconciled to the diagnosis, made by many medical examiners, of Bright's disease. The urine showed, when I examined it, just as it had done for many years, a small amount of albumin. Jan. 20, 1913, after the confirmative evidence of a roentgen-ray examination, a successful operation for the removal of a stone was performed by Dr. B. A. Thomas. The albumin disappeared quite promptly. When I last saw the patient, he seemed to be entirely well.

CASE 3.—A man, aged 21, a college student, was sent to me by Dr. W. P. Walker of South Bethlehem, because of albuminuria, which had been discovered during an examination for life insurance. Since 1909 the boy had had four sharp attacks of tonsillitis, notwithstanding the fact that he had had an operation for adenoids and enlarged tonsils in 1907. He had passed through measles, chickenpox and whooping cough in early life. The urine had a specific gravity of from 1.016 to 1.024, and contained albumin and sparse hyaline casts and occasional red blood cells. His blood pressure was 120 systolic and 80 diastolic; the weight was 109 pounds. The phenolsulphonephthalein test showed 53 per cent. in the first two hours and 15 per cent. in the third hour. The onset of elimination was somewhat delayed, requiring twenty minutes. The quantity of urine was about normal. While at Yale he was seen by Dr. Tileston, and on one occasion by Dr. Pratt of Boston. Both found the condition that I have described.

In June, 1914, the young man, with a number of other students, fell ill with sore throat, after eating in a certain restaurant. Feeling better at the end of twenty-four hours, he went to his home in Bethlehem, where he immediately had a relapse. The throat was intensely inflamed, and on the swollen tonsils there were discovered follicular spots, as well as areas of whitish exudate. The patient was extremely weak and prostrated, and had great difficulty in swallowing.

* Read at the meeting of the Association of American Physicians, Atlantic City, May 3, 1917.

1. Barker and Smith: *Am. Jour. Med. Sc.*, 1916, 151, 44.

I saw him with Dr. Butler, and felt sure that he had streptococcic sore throat. After his recovery, which ensued without serious interruption, the tonsils, from which he had suffered so much during the preceding four or five years, were thoroughly extirpated. The albumin disappeared from the urine thereafter, and the last account I had from the young man was that he was perfectly well.

When, on one occasion, I discussed the subject of albuminuria due to focal conditions with Dr. B. A. Thomas, he told me that he could supply me with the histories of several striking cases. He has been kind enough to do so, and I copy one:

CASE 4.—A man, aged 22, consulted Dr. J. C. Birdsall, Dr. Thomas' assistant, Feb. 15, 1915, because of albuminuria discovered, Jan. 1, 1914, during examination for life insurance. The urine showed a light cloud of albumin but no tube casts. Examination of the pharynx revealed diseased tonsils. A tonsillectomy was advised, which was done during the summer of 1915. October 9, the urine still showed a cloud of albumin. December 17, the patient suffered an attack of bronchitis. Sputum culture revealed the pneumococcus and the *Staphylococcus albus*. An autogenous bacterin was prepared, of which the patient received a number of injections. The urine was examined several times during the next two months, and on every occasion was found free of albumin.

Dr. Thomas also tells me that he has seen a number of instances of chronic albuminuria in syphilitic patients in whom the albuminuria entirely disappeared after antisyphilitic treatment.

The point that I desire to bring out is that cases of long-standing but otherwise mild albuminuria should not be looked on as incurable, unless evidence on the part of the cardiovascular system, or testimony given by functional tests, clearly demonstrates that the kidneys are diseased. This applies also to the so-called orthostatic or postural albuminurias of adolescents. The albuminuria may be kept up by disease of the tonsils (which is not always discoverable by simple inspection), by dental abscesses, by other infective foci, or by the presence of a stone. It may be made to disappear entirely, at least in some cases, by the removal of the offending focus. This gratifying result does not always set in immediately, but sometimes only after a number of months. The physician, therefore, should not be too soon discouraged. It is probable that kidneys which have been for a long time the seat of slight irritation will always be somewhat sensitive, whence it follows that patients cured of albuminuria should remain under medical observation for a number of years.

1715 Spruce Street.

Automobile Accidents in New York.—In a statement issued by State Commissioner of Health Herman M. Biggs an interesting and significant comparison is made between the number of deaths in the state caused by automobile accidents and typhoid fever, as well as other causes of death. While typhoid fever mortality was reduced 26 per cent. in 1917, the deaths from automobile accidents increased so much as to take the place of typhoid fever as one of the principal preventable causes of death. In September, 1917, there were 155 deaths from automobile accidents, more than the combined mortality from homicide and suicide, and undoubtedly a much greater number of injuries involving prolonged illness and more or less permanent disability. Of these deaths 55 were in New York City, 63 in upstate cities and 37 in rural districts. Typhoid fever caused 84 deaths among 796 patients during September. For the year 1917, up to September 30 there were 755 deaths from automobile accidents, while for typhoid fever there were 434 deaths among 2,840 patients.—*Bulletin* New York State Department of Health.

THE USE OF BISMUTH IODOFORM PASTE IN OUTPATIENT WORK*

VINCENT O'CONOR, M.D.

AND

HENRY A. KREUTZMANN, M.D.

BOSTON

The treatment of postoperative hospital cases, as well as that of minor surgical conditions, comprises the general function of the routine work in the outpatient departments of our larger hospitals.

The chronically obstinate sinuses of osteomyelitis, tuberculosis, fecal fistula, empyema, lung abscess cavities and innumerable similar conditions present problems of no small importance to the outpatient surgeon who must receive the convalescent patient on his discharge from the hospital ward and take over the problem of promoting a rapid and complete recovery.

Another difficulty with which the outpatient surgeon has to deal is the indifference and the neglect of the patient to return regularly for treatment.

It was the hope of obtaining better results than with the means commonly employed that led us to use bismuth iodoform paste, first described and used by Rutherford Morison¹ in the treatment of war wounds at the Northumberland War Hospital, England.

In our work we have used two preparations of bismuth iodoform paste, the original paste and an emulsion.

The paste is prepared according to the formula of Morison. It is composed of bismuth subcarbonate or subnitrate, 1 part, iodoform, 2 parts, and liquid petrolatum, 1 part. We devised the emulsion because of the difficulty of introducing the paste into deeper cavities which necessitated drainage through a narrow sinus. This emulsion, which we have called "liquid bipp" (bismuth iodoform petrolatum paste), is composed of bismuth subcarbonate, 1 part, iodoform, 2 parts, and liquid petrolatum, 4 parts. Both preparations are easily and cheaply prepared.

Our treatment of highly infected wounds has been identical with that described in the British war hospital. The wound is first thoroughly irrigated with sterile saline, or 1:25 boric acid solution. It is then liberally swabbed out with 75 per cent. alcohol. The surrounding skin is shaved and cleansed in the same manner. The wound with all its cavities and pockets is tightly packed with bismuth iodoform paste and closed with the usual silkworm-gut or silk sutures.

The type of cases in which the foregoing has been employed has included only those in which we had previously allowed the wounds to heal by second intention or had drained them with rubber tissue. In the case of the majority of the patients treated with bismuth iodoform paste, the wound healed by first intention, with no resultant sinus, leaving a clear-cut insignificant scar. In highly infected cases, healing was effected by rapid granulation from the bottom.

In two patients with tuberculous cervical adenitis in which suppurating glands were removed from tissue that was thoroughly necrotic, curettage, swabbing with alcohol, and packing with bismuth iodoform paste were followed by complete closure. There was healing by first intention and recovery without sinus formation. We report this because in similar cases

* From the Surgical Outpatient Department, Peter Bent Brigham Hospital.

1. Morison, Rutherford: *Lancet*, London, 1916, 2, 268-272.