THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. IX. TORONTO, MAY 1ST, 1877. No. 9.

Original Communications.

URÆMIA.

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(Read before the American Medical Association).

In presenting my views on the toxæmic effects of urea in the system, I do so with considerable hesitancy, not because I doubt the correctness of my conclusions, but because the facts, as I have observed them, and the conclusions therefrom deduced differ from, and to some extent are antagonistic to, the teaching of those whom we delight to honor as authorities—those whose dicta we have been in the habit of receiving unquestioningly, and whose admirable treatises appeared to have left nothing more to be discovered in the premises.

On the toxæmic effects of uræmia in morbus Brightii or uræmic eclampsia I have nothing to add to the exhaustive writings of Bright, Braun, Duncan, Simpson, Churchill, Golding Bird, et alias, nor do I at present intend to offer any remarks on the etiology or *modus operandi* of uræmia, whether its morbid effects are produced by it as urea or as carbonate of ammonia, generated by the decomposition of urea, as taught by Freirichs, Duncan, Benard, Tyler Smith, *et al.*, but I do take issue with the teaching of any authority, however celebrated, when such authority states directly or by implication that uræmia is an effect, a product or sequela of albuminuria, as I am quite convinced, and hope to indicate a course of investigation which will demonstrate that uræmia can exist, and does exist, independently of albuminuria, without the destruction of a single tubulus uriniferus; without a trace of albumen in the urine, and without any evidence of disease of the kidney whatever, and that consequently when the two conditions are found together they simply co-exist, and that a much greater number suffer from uræmia who have neither Bright's disease nor uræmic eclampsia than are to be found who have either or both of these diseases.

My attention was first called to the subject while attending a patient suffering from albuminuria, (of which he died about four weeks afterward), and while my mind was more actively directed to that disease while making daily observation of it, I was called some distance to see a very dear personal friend, and found the symptoms of his case to correspond so exactly with those of my albuminuria patient that I told my friend I feared he had Bright's disease of the kidney, in which opinion his attending physician concurred, but I declined to give a pronounced opinion until after making an analysis of his urine, which had not been done, but which I promised I would make immediately on my return home and report the result to his physician. Much to my astonishment, on examination not a trace of albumen nor a tube cast was to be found, nor any pus or anything else to indicate organic lesion of the kidneys. I had commenced the quantitative analysis for urea before testing for albumen, and completed the investigation, I believe, simply because I had commenced it, otherwise I would probably have done as I had often done before, and as many have done before, and as many have done since, *id est*—concluded according to authority, that as there was neither tube casts nor albumen, *ergo*, there could be no uræmia, but much to my surprise I found less urea in my friend's urine than in that of my albuminuria patient, of which I made an analysis at the same time. Both my diagnosis from the symptoms, and the abnormally small quantity of urea, (three and seven-tenths grains to the ounce), without albuminuria, or indications of any disease of the kidneys, were so contrary to my expectations from the examination, that I repeated the analysis in different ways to guard against the possibility of error, and always with the same result. I then determined to pursue the investigation of the subject as I should have opportunity afforded, and since that time, some six years ago, I have made between seven hundred and eight hundred quantitative analyses for urea, fully demonstrating to me that uræmia exists, not alone in the comparatively few cases of Bright's disease and eclampsia, but in many of our every day diseases, exerting its baneful influence, and *that*, where there is no disease of