

kidney clearly traceable to repeated and prolonged cold bathing. The last case of this kind I saw lately with my friend and former pupil, Mr. Alfred J. Bell, of St. John's Wood. A young man aged 19, in the summer of 1878, after bathing repeatedly in Teddington Lock, noticed that his urine became "almost as black as ink." This was probably hæmaturic; but no chemical examination of the urine was made. The dark colour passed away after a few days, and he had no symptoms of illness. He continued to take active exercise—fishing, shooting, and bicycling; and seemed to be in good health until near the end of October, 1879, when considerable dropsical swelling of the legs occurred. The urine was then found of normal colour, of specific gravity 1020, albuminous to the extent of one-half, and deposited a sediment in which were found numerous hyaline and oily casts. In tracing back the history of this case, we found good reason to believe that the renal disease commenced eighteen months ago with congestion of the kidneys and hæmaturia excited by cold bathing, and that the albuminuria has continued from that time until the present. This case is a type and illustration of many others that have come under my observation. Thus, in one case, albuminuria in a previously healthy young man was a result of wading through a river up to the shoulders at the end of a twenty-mile walk; and in another it was excited by swimming his horse through a river in fox-hunting, and allowing his wet clothes to dry upon him and to chill him. From what I have seen of the effects of cold bathing, I have arrived at the conclusion that more people are injured than are benefited by the practice; and I am confident that, if the urine of all men, women, and children who paddle about in the sea until they are blue and cold were tested within a few hours after their immersion, it would be found to be more or less albuminous in a large proportion of cases.

Amongst the common causes of albuminuria, more or less copious and persistent, but for a time unattended with local uneasiness or serious disorder of the general health, and therefore often latent, is an excessive consumption of animal food and alcoholic stimulants, either separately or combined, as not unfrequently

happens. The kidney is the channel by which a large amount of excrementitious nitrogenous material, whether the product of disintegration of tissue or of imperfectly digested and unassimilated food, is eliminated. The chain of events which connects albuminuria with over-feeding and dyspepsia is probably this. Imperfectly digested food passes into the blood and loads it with impurities. The gland-cells of the kidney excrete these ill-digested products, and, in doing so, undergo structural changes; while the imperfectly assimilated albuminous materials pass more readily by exosmosis through the Malpighian capillaries. Further, the malnutrition resulting from chronic dyspepsia causes a general nervous exhaustion, with loss of vaso-motor nerve-force, and consequent diminution of tone and contractile power in the muscular walls of the arterioles generally, including those of the kidney; while the walls of the capillaries are probably weakened by depraved nutrition. Thus the filter and fluid to be filtered are both materially changed; while the increasing impurity of the blood throws more work upon the kidneys and favours the escape of the altered albumen, which is often much increased after food.

Alcoholic intoxication may alone be a cause of temporary albuminuria. In my *Lectures on Bright's Disease* (p. 41), I have described the case of a man whose urine during a fit of alcoholic narcotism (dead-drunkenness) was loaded with albumen, which in a few hours had entirely passed away; and quite recently a similar case was under my care in the hospital. In my private practice, I have seen a number of cases in which albuminuria associated with habitual alcoholic excess has passed away more or less speedily when the patient has been for a time frightened or persuaded into total abstinence, and has again returned under the influence of an immoderate consumption of alcohol.

There is yet another class of cases in which albuminuria is a result of inveterate dyspepsia in persons of strictly temperate habits. In these cases, we often find that for months, and even for years, there have been symptoms of impaired digestion, such as pain or uneasiness after food, flatulent distension of the stomach