

the blood, and that dissolution of the blood corpuscles occurred in the systemic circulation, and was not confined to the kidneys. Although the disease is comparatively rare, yet a good many cases are recorded; but it is remarkable how few seem to have terminated fatally, and afforded opportunity for *post mortem* examination, and in those few that I have been able to find recorded, although some lesion of the kidney has been found, as in case by Murri, where tubercle was present in both kidneys, with collections of pigment in the cortical tubes, and in one recorded by Otto. The patient, W. H., first came to me on Nov. 8th, 1885. He was then 35 years of age; a shoemaker by trade; married twice; four children by first wife; had been a carter; never very robust. About eight years previously, while carting, had been crushed between the wheel of his cart and a wall on his left side. He had suffered severely at the time, and was laid up for some weeks. When able to get about again, was unable to resume the more laborious occupation and took to shoemaking, and had fair health until about a year previous to my seeing him, when he began to lose color and strength and noticed that his urine was at times dark and at other times light-colored and natural in appearance; he had no pain, but previous to passing dark urine would experience a sensation of weight in the right loin. When I saw him he had a pallid exsanguine countenance, with a peculiar bright yellow tinge, most marked about the face and eyes; he had just passed urine of a dark porter color, with an abundant chocolate-colored flocculent sediment; specific gravity 1022; acid containing a slight trace of albumen; under the microscope the sediment showed abundant granular tube casts and granular debris, but no blood-cells. The blood reaction was readily obtained by the guaiacum test; his breath was short, especially on exertion; the lungs and heart were apparently sound; his appetite good and bowels regular; color of stools normal; the next time he passed urine it was normal in color and appearance; I found no albumen or tube casts; he never had malaria or lived in malarious neighborhoods, nor had he had syphilis; he had always been temperate in his habits; but without, as I have said, ever being very strong, had always been fairly

healthy. On enquiry, I found that the attacks of hæmaturia occurred with variable frequency, sometimes daily and sometimes not for several days; under tonic treatment, iron, etc., he improved in health and color, but the occasional attacks of hæmaturia continued; astringents, such as gallic acid, were useless, but under the administration of ergotine in 3 grain pills, they became much less frequent; so much so that he, of his own accord, would resort to them whenever the attacks came on. After the first three months, from occurring three or four times a week, they diminished in frequency gradually, till during the last year or two of his life, he would often go two or three months without an attack. The phenomena attending them were always the same; they would be induced by over-fatigue or exposure to cold; a sensation of chilliness would come on, accompanied by the feeling of weight in the right loin; the complexion, always pallid, would change to a bright light yellow, and in an hour or so he would pass urine of a dark chocolate color, once or twice, rarely more; after which it would be clear and natural as before, and in a day or two his complexion would clear up again. So invariably was this the case, that I was usually able to tell by his appearance on coming into my office that he was either about to pass bloody urine or had just done so. The character of the urine was always, as I have described, normal in the intervals, but during the attacks having all the characteristics of bloody urine, save that blood corpuscles were absent. During the time that I was attending him, a little over four years, his wife miscarried twice at about three months, and had two healthy living children. On January 13th, while the epidemic of influenza was at its height, he came to my office with the initial symptoms of influenza, chill, headache, etc., and a short time after passed bloody urine once or twice; he then remained free from an attack till the 28th, when a second attack occurred; this was succeeded by oozing of blood from the gums, and the frequent passage of the black tarry stools, which persisted for several days in spite of all treatment, and he died exhausted on Feb. 6th. No recurrence of the hæmaturia took place after the 28th of January. A *post mortem* examination was made seven hours after