

## MEDICINE.

## CHYLOUS OR MILKY URINE.

BY C. E. ISAACS, M.D.

The Transactions of the New York Academy of Medicine, vol. ii. part iv., contain interesting remarks upon a rare form of disease, whose pathology is not definitely settled. Two illustrations of the affection occurred at the Seamen's Retreat, Staten Island, under the care of Dr. T. C. Moffatt, chief physician of that institution. The first case was a Spaniard, who was admitted November 13th, 1858, for abscess of the scrotum. He had noticed three years previously that his urine was occasionally of the color of milk, and remained so for several years. It is now noticed that the urine voided after meals is always milky. When retention sometimes occurs for a few hours, the ejection of a long, fibrinous coagulum precedes the flow of milky urine. He had had gonorrhœa and syphilis, and had taken large quantities of mercury and iodide of potassium. Long continued pain in the lumbar region preceded the first apparent change of color in the urine. The early morning urine is clear, but becomes milky after breakfast.

When subjected to examination, it was found to coagulate by heat, nitric acid, and alcohol. That the milk-white color of the urine was due to an intimate mixture of oily matter with albumen, forming a kind of emulsion, was proved by agitating a small quantity of the urine with sulphuric ether. The urine instantly separated into two distinct portions; the upper layer, of a deep-yellow color, being composed of the ether; while the inferior layer, brownish-yellow and semi-transparent, consisted of albumen. The upper layer left, on evaporation, a copious deposit of oil. No red globules or tube-casts were discovered, after very careful examination. To sum up the various results of chemical tests and microscopical examinations, it was conclusively exhibited that the principal normal constituents of the urine, probably all of them, were present. The same results were obtained from different specimens. He took gallic acid,  $\mathfrak{Dj}$  to  $\mathfrak{ss}$ , three times a day, but was sent home before any beneficial result that might follow could be studied.

The second case, a native of Santa Cruz, a sailor, who had been occupied for five days in taking in a cargo of spirits of turpentine, was admitted in 1855 for hæmaturia, and was soon after discharged cured. In a subsequent voyage, while at Sidney, N. S. W., he was under treatment for periosteal swelling of the tibia, and ten weeks before sailing he experienced constant desire to urinate, and noticed that small clots of blood at times interrupted the free flow of urine. Soon after sailing, he observed that his urine was milky, and he was obliged to urinate about twenty times in the twenty-four hours. The urine became like solidified jelly five minutes after it was voided; fibrinous lumps and strings passed with the fluid—some of them yellow, others reddish—varying in size from a pea to a large pigeon's egg; all contained myriads of red globules. When the urine was allowed to stand, a red layer formed at the bottom of the vessel. The odor of the urine was, in both cases, that of moist clay. No oil globules were detected under the microscope in the fluid portion that remained after the separation of the coagulum. Nitric acid produced coagulation, but this result was not attained by the application of heat until several weeks afterwards. He was put upon the use of gallic acid, and afterwards upon tannin and alum. In October, 1858, he passed a gallon a day; and this quantity was not influenced by diet or exercise. Gradually, under the use of good diet, the milky appearance disappeared and the coagulum became very slight; but he finally passed into a typhous condition, which terminated in death early in 1859.

Post-mortem examination of the kidneys showed them to be in a healthy condition.

In a case reported in the *Medical Times and Gazette*, by Dr. Bence Jones, the patient had passed milky urine for twenty-five years. Dr. Golding Bird relates the