

flask with pure ether, then the aquaous mixture below is run out, and the etherial solution measured in the flask as it is graduated from the tap up. Half the etherised solution is run out on a weighed watch glass and allowed to evaporate at ordinary temperature. The iodoform left is weighed, and the quantity so obtained multiplied by 0.55 will equal the acetone in 1 c.c. of the urine.

In a chemical laboratory from forty to fifty estimations could be made in a day, and the percentage of acetone determined to the third place of decimals with perfect accuracy.

*Acetonuria*.—DR. RUTTAN and DR. WYATT JOHNSTON read a paper upon a fatal case of cerebral apoplexy, in which sugar and acetone had been detected in the urine.

The patient, a man aged sixty-seven, had been under the care of Dr. R. L. MacDonnell, who had been his medical attendant for the last seven years, and had repeatedly examined the urine during that time, always with negative results. The fatal illness had set in suddenly with an apoplectic seizure. Coma had set in immediately, and had lasted for twenty-four hours. The urine was found at the time of the seizure to contain 1.7 per cent. of sugar, which had increased next day to 2.4, and then had disappeared entirely. Acetone to the amount of 0.31 to 0.37 per cent. was found associated with the sugar, and the quantity had persisted for five days after the sugar had disappeared.

The patient had partially recovered consciousness, and had complained of severe occipital pain. Death had occurred suddenly and unexpectedly on the twelfth day of the illness. The condition had been regarded as one of diabetic coma, but at the autopsy an extensive cerebral hemorrhage was present, involving the whole of the base of the brain, but most extensive over the medulla. Dr. MacDonnell concluded from this instance that in every case where there is sugar in the urine it was not necessarily a case of diabetes.

DR. MILLS said that the present case appeared to him like one that was being gradually poisoned from some retained substance in the body, which was unknown to us, and deranged metabolism generally.