CRYSTALS OF URATE OF POTASH

AND

A PECULIAR FORM OF URIC ACID IN URINE.

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Extracted from the American Journal of Medical Sciences, for October, 1853.

CRYSTALS OF URATE OF POTASH IN URINE.

On examining an urinary deposit, I found crystals of urate of potash. This substance rarely has a crystalline form in urine, generally being deposited amorphous. In this instance, these crystals were in the form of flat needles, with well-marked terminal faces, transparent and colourless. Many of them were collected in groups around a common centre, forming rosettes. When dissolved in nitric acid, and treated with ammonia, they gave the usual indications of uric acid, viz., a purple colour. Dissolved in nitric acid and treated with chloride of platinum for potash, yellowish octohedra of chloride of platinum and potash, not polarizing light, were formed.

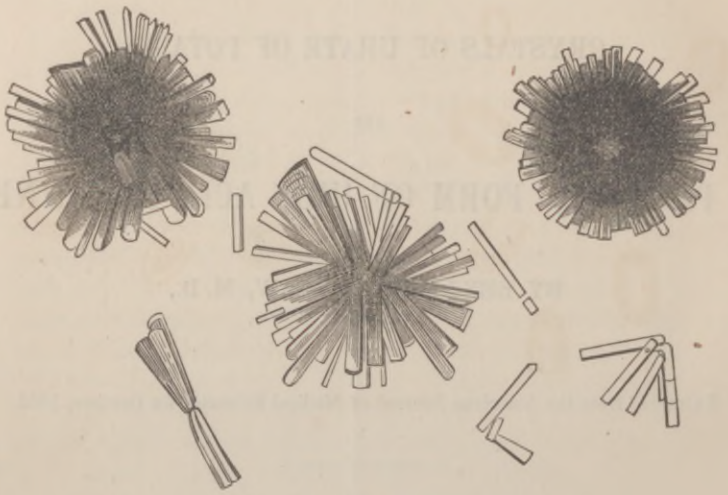
The deposit was flocculent, and of a light-pink colour; no other abnormal ingredient was found in the urine, except a small quantity of the ammonia-magnesian phosphate, and a very few torulæ, which were probably of accidental occurrence.

The patient from whom the urine came was a young man who had complained of general debility and loss of appetite, without any well-marked symptoms of any disease, for several weeks.

This form of urate of potash can be artificially obtained by the union of uric acid and potash in large quantities, and crystallization from hot water

I am not aware that it has ever been seen in urine. Indeed, any form of urate of potash is rare.

The accompanying figures represent these crystals magnified 350 diameters.



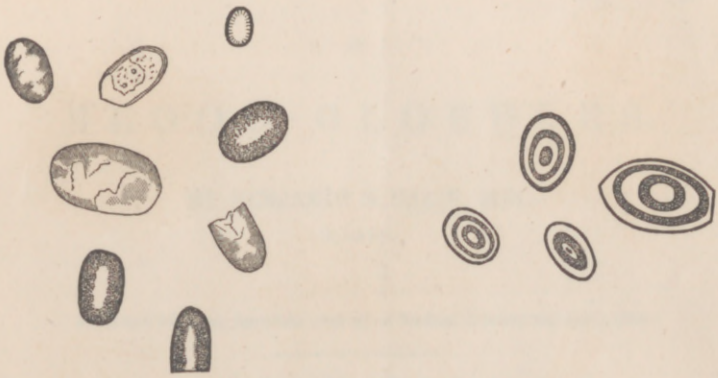
350 diameters.

A PECULIAR FORM OF URIC ACID IN URINE.

On examining a deposit in urine, I found a peculiar form of uric acid. They were large ovoid disks, thin and very transparent, of a pinkish tinge when in a drop of urine, and yellowish when dry. They refracted light strongly, were seen to be disks when revolving in a fluid, and measured on an average 0.028 of a millimetre in their long diameter, and 0.021 of a millimetre in their short diameter. They polarized light beautifully, showing a series of concentric circles, making it probable that their structure is zeolitic, although no trace of needles or any internal structure could be discovered. In some the disks were not perfect, both extremities being wanting. When treated with boiling water they dissolved, and on cooling were precipitated as crystals of uric acid of common and well-known forms, polarizing light, and presenting all the characters of common uric acid.

The deposit was of a brown (light chocolate) colour, heavy, the urine acid, and no other abnormal ingredient seen in it. The patient, a woman, æt. 35, had had scarlet fever, followed immediately by rheumatism, and afterwards by erysipelas. The urine was remarkably abundant during the whole of the diseases.

The accompanying figures represent these forms of uric acid uncoloured; the group to the right, the appearance when seen with polarized light. Magnified 350 diameters.



350 diameters.

(11.)