

The microscopic examination, directed in the last paragraph but one, has a much more important object than might be at first supposed. The researches of our valued teacher, Mr. Rainey, have proved that inorganic matter, when deposited in colloids, assume spherical instead of angular crystalline forms, and moreover, tend to cohere into masses instead of forming sand. In a long series of investigations founded upon the principles enunciated by Mr. Rainey, I have been able to show that the presence of colloids in urine determines changes in the form of the crystalline matters deposited. That, for instance, the form in which uric acid is deposited from urine is not its form, but is a departure from that form in the direction of sphericity. Pure uric acid, which is colourless, has the form of perfectly rectangular oblong plates. Uric acid, as deposited from urine, is always coloured, and has the form of a rhombohedra with rounded obtuse angles. The colour is due to the pigment of the urine, a colloid of high molecule, which has a remarkable affinity for uric acid, and dyes it, so to speak. If the colour be separated the uric acid reverts to the rectangular form. If much mucus or albumen be present in urine, the change toward sphericity is greater, and we may have cask-shaped bodies, dumb-bells, or even globules of uric acid, when the quantity of colloid present is large. Extending this principle to calculi, we find that in almost all cases the earthy or properly crystalline materials are rounded, or spherical, and are also strongly cemented together. Such results have been obtained by me, synthetically, while Dr. Vandyke Carter has, in a perfectly independent piece of work, shown the same, analytically. I here show you for comparison plates of Dr. Carter, illustrating the forms of oxalate of lime found in calculi, and plates of oxalate of lime as variously altered by colloids, published by myself in 1871 in the St. Thomas's Hospital reports. Dr. Carter states that his drawings were made before he had seen mine, and you will agree that the coincidence is remarkable. The practical issue here is the recognition of the fact that, even if the urine contain habitually much crystalline matter, the danger of

calculous formation is not great unless there be catarrh or albuminuria. As regards oxalate of lime, it is, however, certain that very little colloid cement is necessary. Hence the frequency with which this substance forms small calculi in the pelvis of the kidney. Hence we will look to two things, the prevention of the deposit, and the prevention, as far as may be, of the persistence of catarrhal affections of the urinary passages. The first every one naturally regards, the second, less known as a cause, will, I trust, receive more attention in the future. In conclusion, I trust you will have seen how much can be done with a few appliances, and how much subject for thought and possibility of useful investigation is opened up thereby.

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**MYOSITIS OSSIFICANS.**—At the Vienna Medical Society, Docent Dr. Nicoladoni presented a girl, seven years of age, as an example of a very rare affection of the muscles, viz., ossification of the muscles of the trunk and limbs. The disease had been going on for about a year, commencing in the muscles of the neck, whence it extended to the spine, the anterior part of the thorax, and the limbs. On each side of the spine a rigid line (sacrospinales) extends. The scapula is fixed to the thorax; and in the cervical regions are found fibrous cords containing bony plates. The right knee-joint is contracted, and the pectorales are almost entirely ossified. There are only three similar cases on record.

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Dr. Schoeler presents the history of a case in which, for the first time, the cornea of a dog was transplanted into a human eye successfully. After the insertion of the cornea into its new position, the wound was entirely covered with flap of conjunctiva. Six weeks later a peritomy was performed, so as to cause the disappearance of this artificial pannus. The result was so far successful that the patient was enabled to recognize the movement of the hand at six inches. Several cases, showing the advantages of conjunctival flaps in the treatment of wound of the sclerotic, are narrated.—*Medical Record.*