

commonly took place whenever the specific gravity was remarkably lowered. One word more upon this head: the circular form appears connected with a specific gravity rather lower than the average. In the three instances, where it occurred alone, the specific gravity was 1011, 1015, and 1019; when with octahedra, 1010, 1016, 1020, 1021, 1022, 1023; but when with dumb-bells also, 1026. I have met with dumb-bells in urine as low as specific gravity, 1012, and as high as 1035. It has been stated that the appearance of uric acid not uncommonly precedes the disappearance of the oxalates. It occurred in seven out of the nineteen individuals mentioned, but in none could I perceive any relation of the kind. The sudden discharge of a large quantity of lithate of ammonia, however, has appeared occasionally to influence, in a temporary manner, the subsequent amount of oxalates."

11. *Composition of the Blood in New-Born Animals.*—M. POGGIALE, from some experiments made by him, has arrived at the following conclusions, respecting the composition of the blood in new-born-animals, a subject on which there is much diversity of opinion among chemists:—

1. The proportion of water in the blood is rather high, whilst that of fixed matters is very considerable.

2. The blood of new-born animals is very rich in globules, and poor in fibrine.

3. The quantity of albumen, and of fatty matter, seems to be about the same as that found in the adult.

4. The oxide of iron is more abundant in the blood of the newly-born.

Of all the animals, whose blood he submitted to examination, that of young dogs alone presented a considerable proportion of globules. Among them, the mean proportion was 162.30. Among other young animals, he found less fixed matters and globules than in the adult state; however, the number indicating the proportion of globules is always relatively higher; that of fibrine is very low.—*Lancet*, Sept. 11, 1847.

12. *On the Condition of the Urine in a Case of Urticaria.* By DR. DOUGLAS MACLAGAN.—The gentleman whose case was submitted to the Society was a patient of Dr. Scott, and had long been the subject of severe attacks of urticaria, occurring almost daily, and after every meal, attacking particularly the face and upper part of the body, and by the disfigurement which they occasioned, as well as by the cutaneous irritation, proving a very distressing and annoying complaint. From inquiries made by his medical attendant, his attention was called to the state of his urine, respecting which he had not previously made any particular observations. When his attention was directed to this subject, he found that, though not in any way unnatural in quantity, it had a very pale colour, and considering it to be defective in some respect, he sent it to Dr. Scott for examination. Dr. Scott found it to be of remarkably low density, averaging only about 1010. Naturally suspecting that this might be connected with diseased kidneys, Dr. S. tested it for albumen, but not a trace of this substance could be detected in it. Under these circumstances, Dr. Scott submitted it to Dr. M. for more rigid examination, on the 26th December last.

The urine sent was the morning urine, which should always be used for examination where the whole urine of 24 hours cannot be obtained. The quantity sent was about 10 oz. It was of a very pale straw colour, quite transparent, and let fall no deposit on standing. Its reaction with litmus was feebly but distinctly acid. Its density 1009.039. It was analyzed by the process employed by M. Becquerel, in his *Semiotique des Urines*, by which the amount of water, urea, uric acid, inorganic salts, are determined. The results obtained from the urine in the present instance were the following:—

Urea, . . . . .	6.91
Uric acid, . . . . .	0.05
Inorganic salts, . . . . .	12.03
Other organic matters and water, . . . . .	981.01
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	1000.00

Albumen was carefully tested for by all the re-agents applicable to this end, and Dr. Scott's observation, that no trace of this substance was detectable, was fully confirmed.

The peculiarities of this urine will best be appreciated by contrasting it with the proportion given by Bequerel as the mean of the urine of healthy males. According to him, that is,

Urea,	.	.	.	.	13.838
Uric acid,	.	.	.	.	0.391
Inorganic salts,	.	.	.	.	7.695
Other organic matters and water,	.	.	.	.	978.076
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					1000.000

It appeared, then, from this analysis, that the chief peculiarity in the present case was a deficiency in the ordinary characteristic ingredients of the urine, the urea, and uric acid. This could not arise from mere excess of water; first, because the urine was not excessive in quantity; second, because the inorganic salts were above the normal standard, whereas, had the water merely been in excess, they, too, ought to have indicated a diluted condition of the urine. Dr. M. ventured, therefore, to propose, as the pathological view of the case, that the defect here was merely a deficiency of the urea and uric acid; in short, a want of what modern chemists call the products of transformation of the tissues, and that the retention in this way in the system, of matters which ought to be eliminated from it, might be the cause of this cutaneous irritation, especially occurring, as it did, after meals.

The question now was, how was this to be remedied. It occurred to Dr. Mac-lagan that as it was known that colchicum had the property of increasing, in a remarkable degree, the amount of urea in the urine\* of persons using it, this drug might have some effect in bringing the urine of this patient to a more healthy condition.

In conformity with this suggestion, Dr. Scott placed his patient on the use of the tincture of the seeds of colchicum, and, on the 13th January, when the colchicum had been in use for about a fortnight, another sample of the urine was procured, and analyzed, as before. The following were the results:—

Its density was 1029.9.

Urea,	.	.	.	.	20.36
Uric acid,	.	.	.	.	0.50
Inorganic salts,	.	.	.	.	12.72
Other organic matters and water,	.	.	.	.	966.42
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					1000.00

Here, then, it will be seen that the expected physiological action of the colchicum was manifested in a marked degree. The urea was tripled in its amount, and raised above the normal standard. The increase of uric acid was in a tenfold ratio, whilst the water and the other organic constituents suffered, of course, a corresponding diminution, the inorganic salts remaining nearly as before.

The result of the case was more decidedly favourable than was anticipated. The tendency to the urticaria diminished, and at last entirely went off under the use of the colchicum, and the patient has kept free of his complaint since that time.

The above case was not adduced with the view to establish a pathological theory of urticaria. No single case will serve as a basis on which to found this. It was, however, laid before the Society, in order that attention may be directed towards the state of the urine in cases of a similar nature, and because it appears to be of some interest to observe a therapeutical result obtained from a consideration of the physiological action of a drug.

Allusion was made to the fact, that Dr. Elliotson, and others, had obtained good

\* Dr. Christison's Observations on this point. Published by Dr. Robert Lewins, in his paper on Colchicum.—*Edin. Med. and Surg. Journal*, No. 148.

results from the use of colchicum in these diseases—*Proceedings of Med. Chirurg. Soc. Edinburgh*, in *Monthly Journ. Med. Sci.*, Aug. 1846.

13. *Nature of the Faecal Evacuations in Cholera.* By M. ANDRAL.—Among the alterations found in the solids and fluids of the body in patients affected with cholera, there is one which belongs especially to this disease, and which is characteristic of it; namely, the existence within the intestinal canal of a peculiar white fluid, very similar to water in which rice has been boiled. This material, which is sometimes found in large quantities in the intestines of persons who have died of cholera, and which constitutes the alvino evacuations during life, consists of a muddy liquid, capable of being rendered transparent by filtration, and within which are suspended, in greater or less abundance, lumps of opaque white matter, perfectly untinged by bile. Concerning the nature of this peculiar fluid, it has been considered to consist of the serum and fibrine of blood escaped from its vessels, and poured into the intestinal canal. The liquid portion of this material has been regarded as the serum of the blood; the solid grumous portion, as the fibrine. According to this view an explanation is afforded of the peculiar characters presented by the blood in cholera. And it is considered by many, that the blood, thus deprived of much of its serum, and of its globules, can no longer traverse with readiness the different capillary net-works of the body, and that thus many of the peculiar symptoms presented by this disease may be explained. The facts, however, on which such an opinion was founded, not having been sufficiently proved, M. Andral was induced, by the occurrence of several cases of cholera, in the hospitals of Paris, in 1846, to submit to careful examination the matters passed from the intestines. After having filtered this intestinal matter, and thus separated it into two portions, the one, liquid, perfectly transparent and colourless; the other, solid, consisting of a number of particles agglomerated together, he treated the liquid portion with alcohol, nitric acid, and heat; but by none of these reagents was a precipitate formed; consequently there was no albumen. The results of an examination of this liquid portion by M. Favro also showed that the organic substance contained in it, possessed none of the characters of albumen. This proves, therefore, that the serum of the blood does not enter into the composition of the materials ejected from the intestines in cholera. Like the serum, indeed, this fluid was highly alkaline; but this is a character common also to many other fluids of the economy. The contents of the intestines also are usually alkaline, and the alkalinity is not more marked in cholera than in many other diseases.

Moreover, if the intestinal secretion in cholera is essentially composed of albumen, the quantity of this material in the blood ought to be found considerably diminished, as it is in certain affections of the kidney attended with the transmission of albumen through these organs. The diminution, indeed, in cholera ought to be much greater than in such renal affections, because the quantity of secretion poured from the intestines is very large. But M. Andral, having examined the blood in all stages of cholera, finds that the proportion of albumen is almost unaltered, neither manifest increase nor diminution being found. He has obtained equally decisive proof also of the non-existence of fibrine in the intestinal secretions in this disease. No trace of a filamentous texture could be detected by the microscope in the solid masses evacuated. These solid masses he finds to be composed of numerous nucleated and nucleolated cells, closely resembling pus-globules. Besides these globules, which were very abundant, the masses contained also numerous particles of epithelium. It would appear, therefore, from the results of his examinations, that the white matter discharged from the intestines, in cholera, consists essentially of a mucous secretion in enormous quantity, and so far altered in quality as to contain an abundance of corpuscles in all respects similar to pus-globules, and to which the white appearance of the secretion is due.—*Lond. Med. Gaz.*, Oct. 1847, from *Comptes Rendus*, 9th Aug., 1847.

[Dr. J. Hughes Bennett very justly remarks, in commenting on these investigations of M. Andral—"We doubt very much the propriety of attaching the idea of fibrine only to that condition of the liquor sanguinis when it coagulates into filaments. This, in the adult, takes place, for the most part, only on serous, and is exceedingly rare on mucous membranes. In the latter situation, it is rapidly