The examination (made by Mr. Ross, curator) showed that the gangrenous patches upon the abdomen had penetrated the entire thickness of the skin, exposing the muscles beneath; in other parts, the ulceration was of less depth. In each lung there were several small recent secondary abscesses, surrounded by a zone of hyperæmic tissue; on the left side there was also recent lymph on the surface of the pleura, and two ounces of purulent fluid in its cavity. A careful inspection of the brain, the other viscera, and the joints, revealed nothing unnatural.

In this case the diagnosis was made certain by the child having been seen by a competent observer, with the ordinary eruption of varicella before gangrene had commenced.

But to any one acquainted with Mr. Hutchinson's paper, the history and aspect of the eruption made the nature of the case sufficiently apparent. The gangrene in this instance set in suddenly and progressed with great rapidity; and a point of interest is the early occurrence of pyæmia, which was no doubt the immediate cause of death.

I am afraid the case does not throw any light upon the cause of this serious complication of what is usually a trifling disease. This child was very ill-nourished (probably from wrong feeding) and feeble, but other recorded instances of the disease have occurred in healthy children.

PEPTONES IN URINE.

By CHARLES HENRY RALFE, M.D., F.R.C.P.,

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SINCE my communication to the JOURNAL, April 7th, in which I alluded to the detection of peptones in urine, I have had three cases under observation at the London Hospital, in which the urine gave the reaction characteristic of these bodies with Fehling's solution. As the subject has again been brought forward in the interesting communication of Dr. Oliver (April 21st), and by Dr. George Johnson in last week's JOURNAL, I venture to think that brief notes of the cases may not prove uninteresting at the present time.

CASE I.—A lad aged 18, who had received, some days previously, a severe blow over the left flank, and for which he had been treated at the time in the receiving room of the hospital, applied with a letter at the out-patient department on April 9th. He stated that, since the accident, he had been feeling ill and weak, and that he still suffered much from pain in the left iliac region, passing down the groin into the thigh and hip; his bowels were much confined. The urine was examined for blood and albumen, and a small quantity of the latter was found. On testing the urine with Fehling's solution, a decided rosy red coloration was developed just above the junction of the two fluids. He was ordered to take an alkaline mixture, to which a few drops of tincture of opium were added, and a draught of sulphate of magnesia every other morning. On April 16th, he reported himself as much better, the urine was free from albumen, and no coloration was developed with Fehling's solution.

CASE II.—A woman, aged 54, was admitted as an out-patient April 16th, with dyspeptic symptoms, apparently due to gastro-duodenal catarrh. As she stated, she was frequently disturbed in the night time to pass urine, and suffered from weakness and debility, the urine was examined for albumen; none, however, was found, but the red coloration with Fehling's solution was well marked. She was ordered a mixture of bismuth and nuxvomica three times daily, and a compound rhubarb pill, with belladonna, twice a week at bedtime. April 30th. The dyspepsia was much relieved; there was still a coloration with Fehling's solution, but fainter.

CASE III.—A woman, aged 55, but looking very much older, was first seen April 23rd, complaining of rheumatism, dyspepsia, and shortness of breath, with a frequent desire to pass urine; she was very weak and debilitated. The urine was examined for albumen, but none was found; an exceedingly distinct, rosy red coloration, however, was developed with Fehling. In this instance, the urine gave a precipitate with picric acid, which redissolved on the application of heat. This patient was ordered quinine. On April 30th, I saw her again; she felt a little stronger, but the coloration with Fehling's solution was still distinct.

In order to ensure the development of the characteristic reaction, the following mode of procedure must be adopted. A drachm of Fehling's solution is to be introduced into a test-tube, and then a drachm of urine is to be floated carefully on the surface. Where the urine comes into contact with the alkaline copper solution, a thick zone of phosphates will form, above which, if peptones be present,

a red halo will appear, not violet, as stated by Dr. George Johnson, but a decided claret, or ruby red. Indeed, as a matter of fact, it is laid down in works on physiological chemistry, that the violet tint is characteristic of albumins, while the red coloration distinguishes the peptones from these. Great care must be taken not to mix the urine with the Fehling's solution; otherwise the deposit of phosphates will be diffused, and the red coloration obscured. It is probable, owing to want of attention to these details, that Dr. George Johnson has failed hitherto to meet with a specimen of urine showing the reaction.

The urine, too, should be recently passed. In Case 3, the reaction was very distinct in the sample of urine passed by the patient in the out-patient room, and a few hours later it was well marked when I showed it to a friend; but by the next morning the urine lost the power of developing the coloration with Fehling's solution, yielding instead only a muddy cloud. The urine had evidently undergone putrefactive changes, for it smelt abominably. I have since thought the peptones in this case might have been derived from pancreatic digestion; the result of which, as is well known, if prolonged, is to lead to putrefactive changes in proteid substances.

In my first communication I stated my belief that the peptones found in the urine would probably consist of the "mixed" peptones, and not merely of "true" peptones. I find, on reference to Dr. Michael Foster's *Text-Book of Physiology*, that the proteid body observed by Dr. Bence Jones in a case of osteomalacia, closely resembles the A peptone of Meissner, or if the nomenclature of Kühne be adopted, hemi-albumose. This body, as I need hardly observe, is one of the initial products of both peptic and tryptic digestion.

In conclusion, I venture to think that a consideration of the conditions under which peptones appear in the urine is likely to furnish us with important information, not only as regards the physiology of these bodies, but with respect to many obscure derangements of digestion. The test is so easy of application, and the reaction so plainly marked, while the number of instances in which it is found to occur are far from being rare and exceptional, that we ought soon to be able to collect a sufficiency of facts from which some useful deductions may be drawn.

ON THE ACTION OF CANNABIS INDICA.

By JAMES OLIVER, M.B.,

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INDIAN hemp for some time back has been vaunted as a medicine of some therapeutic value in cases of dysmenorrhœa; to me, however, its action seems so variable, and the preparation itself so unreliable, as to be hardly worthy of a place on our list of remedial agents at all.

Two preparations of this drug have been recommended for use, viz., the tincture and the extract; it should matter little which is used, the tincture being simply a spirituous solution of the extract. Much, however, as far as results obtained go, seems to depend upon its place of cultivation. Many of those persons who experienced unpleasant effects from one-grain doses had previously taken the same dose (different sample, however,) with almost no result at all.

It is usually said that cannabis Indica produces pleasurable symptoms; such, I regret to say, has not been my experience; in fact, the result has frequently been alarming to the friends of the patient, but more frequently still, from the comparative inertness of the drug, no result is obtained at all, even although three and four grains have been given as a dose. When unpleasant symptoms have been produced by the use of this drug, they do not readily pass off, but will often persist for a day or two, and the too early use of morphia will not uncommonly aggravate the condition.

The physiological effects of the drug usually manifest themselves about two hours after administration; this, however, varies, being hastened or retarded according to the condition of the stomach as regards food at the time of ingestion.

Cerebral symptoms are the first to develop, the patient experiencing peculiar indescribable sensations in the head, by no means pleasant in character; and although quite rational, knowing all that is going on, some have an irresistible desire to be always on the move. In some cases earlier, in others later on, the patient loses control over the muscles, being unable to move them at will; in one case, the muscles of the larynx were so affected, and the patient when interrogated was for the time being unable to respond.

Muscular anesthesia is often produced by the use of Indian hemp,