first two days above the theoretical proteid sugar curve. This is doubtless due to the fact that previously and on the first day the patient was on ordinary diet, and there was consequently a quantity of sugar in the system, derived from purely amylaceous sources, still to be excreted. The amount of sugar contained in this diet could not be estimated with great accuracy. The only portion of this curve really trustworthy is from the third to the seventh day, when on diabetic diet, and the relation between the curves is the same as in the first two cases. Subsequent to this he grew worse, and

In B's case the urea eliminated fell to but little above the normal, though there was still a considerable amount of sugar eliminated. As has been noticed previously, the sugar was much reduced previous to death.

To briefly recapitulate, we see in the three cases:—1. That the amount of sugar derived from proteid metabolism is less than that which is theoretically possible, supposing all the proteid to be converted into urea and sugar, thus leaving a margin for ordinary healthy working purposes. 2. That the ratio of sugar to urea from non-amylaceous sources, while

DIAGRAM 2

Curve a—Experimental urea.

Curve b—Curve of experimental proteid sugar.

Curve c—Curve of the ratios of sugar and urea. It is on a different scale to the other curves, the figures to the right giving its value. In each case its position is changed to avoid confusion.

Curve d—Curve of maximum amounts of sugar theoretically derivable from the proteid metabolised. It is formed by multiplying the daily amounts of urea by the ratio 3.3.

the amount eaten varied much. The toasted brown bread which was substituted for the gluten varied much in the completeness of its toasting, and was not unfrequently not toasted at all.

In Diagram 2, Case 3 and the latter part of Case 2 are interesting in connexion with the ultimate results of the cases. Both patients died shortly after the observations, and we would venture to suggest that this may be due to the fact that the healthy portion of the proteid metabolism is reduced to such an extent, as indicated by the approximation of the two curves, as to be incompatible with nutritive requirements.

approximating to a constant value of about 2.2 : 1, yet varies within certain limits, increasing with the amount of sugar excreted, and we have indicated above a theoretical explanation of this. 3. When the sugar is large in amount there is therefore less margin for ordinary proteid metabolism, which argues a bad prognosis.

That three cases afford very insufficient grounds from which to draw clinical conclusions we are well aware, and would wish the above inferences drawn from them to be regarded in the light of suggestions, to be confirmed or disproved by subsequent observations, which we hope to undertake.

CALCULUS OF THE BLADDER IN A FEMALE CHILD THREE YEARS AND A HALF OLD; LITHOTRITY; RECOVERY.¹

By JOHN R. LUNN, F.R.C.S. EDIN., &c.,
MEDICAL SUPERINTENDENT TO THE ST. MARYLEBONE INFIRMARY.

J. B—, aged three years and a half, was admitted into the St. Marylebone Infirmary on August 12th, 1881. The child was brought by a friend, who stated that it had

been in a London hospital for three weeks for prolapse of the rectum. On admission the child was found to be well nourished but in a very dirty state. Slight incontinence of urine and frequent micturition were observed, but there was neither rectal prolapse nor hæmaturia. Urine normal. She passed a round worm (*ascaris lumbricoides*) in Oct. 1881, having previously had some symptoms and treatment for the same. The child's general health continued to improve, and she was able to get about the ward. In Jan. 1882, she had fresh symptoms of worms with prolapse of rectum. Treatment was again successful, and she passed another round worm. Her health did not improve as before; she began to scream at night, complained of pain in stomach,

¹ Read at the West London Medico-Chirurgical Society.

and the incontinence of urine became worse. The urine was again examined and found normal. In February she was sounded by me under chloroform, and a large hard stone was found, about one inch square, roughly measuring it with a lithotrite. Between the end of February and the beginning of March her symptoms became much worse, the urine contained streaks of blood, the appetite gradually failed, and screaming at night-time began, and she passed water more constantly. The urine was acid and contained a trace of albumen.

On April 2nd, the patient having been put under chloroform by my colleague, Dr. Benham, the stone was detected by the sound. It could also be easily discovered by combined rectal and supra-pubic examination. The hips were raised on a pillow and the urethra dilated with ordinary dressing forceps. A small lithotrite was then introduced into the bladder, and the stone crushed several times and the fragments removed with Bellingham's wash-bottle. After the child had been under chloroform for three-quarters of an hour she was put back to bed and kept warm. The temperature was 99° F. on the same night and on the four following days after the operation. Pieces of the crushed calculus were constantly passed. On the fifth day after the operation the urine became a littleropy. Hot baths, warm water injections, and chloral were ordered. The urine never became alkaline, and only had a trace of albumen. She was kept on her back and made to pass her urine whilst lying down, and on the tenth day appeared well and happy. On the fourteenth day the temperature went up to 102° F., and the urine again became ropy. The same treatment was resorted to. On the seventeenth day the fragments were crushed for the second time, as it was thought they were causing irritation of the bladder. The same process was adopted as before, but the urethra was not dilated. Four days later another rise of temperature, 102·4° F., occurred, but after a dose of castor oil became again normal. On April 23rd crushing was performed for the third time. The fragments could be felt previously between the rectum and abdomen like a bag of small stones. Most of the remaining fragments were removed and the same precautions after the operation were taken as before. Four days later a slight rise of temperature, 99·2° F., was noted, but it went down after the warm baths. On May 3rd, one month after the first crushing, the urine was acid and contained only a trace of albumen. There was neither prolapse of rectum nor pain. The urine was passed voluntarily on May 16th, for the first time, and the sound did not detect anything abnormal in the bladder. The child went out on June 10th, 1882, with no incontinence of urine, perfectly well, and cured.

Remarks.—The above case is interesting on account, first, of the age of the child; secondly, owing to the size of the calculus; and, thirdly, the sex of the patient. The danger to be avoided during the crushing was damage to the mucous membrane of the bladder. The smallest lithotrite procurable was employed. Clover's wash-bottle was found more handy and more manageable than Bellingham's. It is also interesting to note that the urine never became alkaline. The child I may say never had a dangerous symptom during the three operations.

I am indebted to Dr. Thudichum for the analysis of the calculus, which consisted of phosphate of calcium, phosphate of ammonium and magnesium, and urate of ammonium.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—*MORGAGNI De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

APHASIA AND APHEMIA.

(Under the care of Dr. LANGDON DOWN.)

THE following notes, for which we are indebted to Mr. Alfred T. Schofield, M.R.C.S., &c., house-physician, illustrate the difference between the above closely allied affections:—

Aphasia.—A woman, aged fifty-two, on Nov. 20th, being previously in good health, was found at 8 A.M. sitting on the side of her bed, unable to speak or to move her right arm or leg. For five days she did not seem to understand anything, though there was apparently no actual loss of consciousness. The patient was admitted on Dec. 12th, when her condition was as follows: She is intelligent, and seems much distressed at her present condition. She has complete motor paralysis in the right arm and leg; the sensation in them is increased. There is no facial paralysis. Patient can open her mouth, but cannot protrude her tongue when told, though she makes great efforts to do so. She cannot say "yes" or "no" in answer to any question, nor does she even shake or nod her head. She is, however, constantly saying either "Oh, dear me!" an expression she habitually used at home, or "pretty Kitty!" (an expression never heard at home), though she does not say either one or the other when told to do so. Her articulation and vocalisation, though confined to these four words, are perfect. The patient will not make the least attempt at writing (with her left hand), nor does she ever read. If several numbers are written down she can point to the one representing her age (52). There is no history of syphilis. The heart, arteries, and lungs appear normal. She has control over the sphincters. She has some small varicose veins in the leg. A fortnight after admission the patient said on one occasion to her nurse, "Make it," referring to the bed, and now occasionally shakes her head in negation. Her condition is otherwise unchanged, though she makes great efforts to speak. In this case there is no loss of articulation (aphemia), no loss of voice (aphonia), no mere loss of memory (amnesia), but there is complete loss of intelligent speech, spoken or written (aphasia).

Aphemia.—The patient is a man aged twenty-two. On Dec. 12th, at 8.30 A.M., he was suddenly seized with loss of speech, and admitted to the hospital on the same day. He did not lose consciousness. He has right facial paralysis, principally of the lower half of the face. He can protrude the tongue readily, which is deflected to the paralysed side. He has slight paresis of the right forearm and leg. In answer to every question, he can only give a sort of husky grunt. He cannot utter a single word. He had been hoarse for a fortnight before the attack, but the voice is now much improved by the application of the interrupted current to the vocal cords. The patient is very intelligent, and nods or shakes his head, or writes his answers correctly by pantomime on his hand with one finger or with paper and pencil. No specific history can be obtained. The heart and arteries are normal. In this case the patient was at first aphemic, but has now recovered his voice. He is not aphasic, for though he cannot articulate he can speak intelligently (if one may use the expression) in writing. He has, however, totally lost the power of articulation, though there is no paralysis of these muscles, and no difficulty of deglutition, and is therefore aphemic. After three weeks his condition remains unchanged.

MANCHESTER ROYAL INFIRMARY.

CASE OF DISLOCATED SHOULDER AND SIMULATED RUPTURE OF AXILLARY VEIN.

(Under the care of Mr. HARDIE.)

FOR the report of the following case we are indebted to Mr. W. Thorburn, M.R.C.S., house-surgeon.

F. S.—, a woman, seventy-two years of age, was admitted to the accident room of the Manchester Royal Infirmary on the evening of Dec. 29th, 1883, complaining of injury due to a fall on her left shoulder. The shoulder presented the usual signs of subcoracoid dislocation, but there was in the mid-axillary line, about opposite to the fourth rib, a soft ill-defined tumour about the size of a small orange; the veins over the shoulder were much distended. An attempt was made to reduce the dislocation by the thumb in the axilla, but on trying to do so the tumour very rapidly increased in size, and in the course of a few minutes was as large as a football and very tense. The veins were much distended, the radial pulse but slightly weaker than that of the opposite side. The diagnosis arrived at was probable rupture of the axillary vein, and as the only practicable treatment appeared to be amputation at the shoulder, Mr. Hardie was sent for. Pending his arrival, the arm was enveloped in a wet bandage and the tumour and chest enclosed in an Esmarch's bandage. About an hour and a half later, when this was removed, the tumour appeared