Their capsules stripped off readily. The surface was uneven and granular. There was little sebaceous-looking material to be seen from the surface. On section, the organs appeared somewhat congested, especially the cones. The cortical substance was relatively considerably diminished. Throughout it, and to a less extent in the cones, there were deposits of sebaceous-looking material. There was also a good deal of fat in the pelvis of the kidney. The ureters and bladder were natural. On microscopic examination of the kidneys, many of the tubules were found to contain fatty matter, and in some there were mineral impregnations. There were no cysts, nor was the connection increased as in cirrhosis. The arteries were thickened and prominent. Many tubules were normal; but here and there, throughout the whole organ, there were individual tubules full of opaque fatty matter. The size and form of the affected tubules varied much, some being of natural size and round, others smaller and angular, presenting, as it seems to me, the different stages of absorption of contents and consequent atrophy. The brain was pale and somewhat cedematous; it weighed nearly three pounds. The vessels at the base were at many parts atheromatous and calcareous.

I do not propose to comment upon all the points in this case—only to select two or three which appear of special interest. On looking back at this case, I feel convinced that a single process was in progress throughout its whole course. It will not be denied by any one, that at the commencement we had to do with an ordinary though severe case of inflammation of the kidney: and there was no break in the history. The albuminuria continued throughout. The tube-casts, the occurrence of dropsy when he caught cold, the gradual deterioration of the blood and the tissues generally, the hypertrophy of the heart, and the degeneration of the arteries, were all such as we expect to follow upon such an ailment when it neither proves fatal nor is fully recovered from.

The morbid anatomy exactly corresponds to what I have described as the third stage of the inflammatory form of Bright's disease, and of course confirms the accuracy of that description. I quite perceive that some observers might interpret the case differently. No one could regard it as an example of pure cirrhosis, but it might be held to be a combination of inflammation of the tubules with that process. This view appears to me untenable for the following reasons: 1. That the kidneys were not so reduced in size as they are in cases of fatal cirrhosis; 2. That the capsule slipped off readily, not carrying with it any portions of the renal tissue, as it does in cirrhosis; 3. That the surface was granular and uneven, but not to the extent met with in cirrhosis; 4. That the cortical substance was atrophic, and contained abundance of sebaceous-looking material; 5. That the stroma was not absolutely increased, while the blocked up tubules presented all stages of atrophy from the commencing to the most advanced—an atrophy apparently due to molecular absorption of the contents, rather than to any increased growth of connective tissue.

The symptoms attending the process were also of interest. While the albuminuria was persistent throughout, there were at first diminished flow of urine and dropsy. At a later period there was little dropsy, and the urine attained or exceeded the natural amount. The dropsy was throughout determined by the amount of urine secreted; and that secretion was, in the early stage, below the natural amount, because the obstruction in the tubes exerted a counter-pressure to the blood-pressure within the Malpighian bodies. In the later stages, when hypertrophy of the heart had occurred, and when comparatively few tubes were occluded, the blood-pressure was so increased as to induce a certain amount of diuresis. This appears to me one of the most beautiful and satisfactory explanations of pathological process with which I am acquainted.

Another point which is worthy of remark, is the extreme desirability of discovering some treatment by which the chronic inflammation which results in continued albuminuria should be removed. My experience shows me that the skim-milk treatment, so highly commended by Dr. Donkin, does not suffice to accomplish this; and while I have sometimes succeeded by means of counterirritation, with croton oil and with iodine, I have often failed. The internal use of belladonna also has in some cases appeared useful, but it is in too many cases valueless. I shall be very glad to hear the experience of members of the Society in regard to the point.

I may further remark that this case has a certain bearing upon the views recently advanced by Sir William Gull and Dr. Sutton. If my interpretation of the facts be correct, the thickening of the arteries and disease of the heart were complications consequent to the renal affection; and, if this be so in one form of chronic Bright's disease, it surely establishes a probability that in other forms the relationship will not be reversed—that, in other words, cirrhosis also induces, and is not a mere attendant upon, vascular disease.

ON DIPHTHERITIC ALBUMINURIA.*

By R. BROWNING, L.R.C.P.L. etc.

THE pathognomonic importance of albuminuria when occurring in the progress of true diphtheria is a practical point which, strangely enough, I find, after some painstaking, either totally passed over, or at least barely mentioned in the writings and *visà voce* cliniques of the highest authorities I have yet been able to consult.

In the absence of *post mortem* observations of my own, it is with some diffidence that I venture to put before you what I have reason to consider an equally novel and successful treatment of this momentous symptom. I would premise that by the term "true diphtheria" I wish to specify that dangerous disease known, unfortunately, but too well to most of us in this neighbourhood, characterised especially by the appearance of a false membrane on the surface of the pharynx, which membrane can be removed in strips by a forceps, and consists of numerous epithelial scales and cells, with some occasional pus-globules, all interspersed in the intestines of fibrinous filaments, to the exclusion of so-called "genuine croup," of "laryngitis stridulosa," and of any bad forms of tonsillitis, muquet, or local scarlatin lesion. [I have placed "genuine croup" in this *Index Expurgatorius* from deference to the opinion of most English authors; but many years since I was taught by Dr. Semple, at the St. Pancras Dispensary, that it was really and actually the diphtheritis of Bretonneau, and the same is held by most modern French writers.]

From what I have lately witnessed while watching two local epidemics of diphtheria, I am disposed to consider

a. That albuminuria is present in nearly all cases.

b. That its appearance is usually about the end of the first week after the diphtheritic membrane is developed, though sometimes earlier, more rarely later.

c. That coexistently with its appearance, a notable diminution of the quantity of the urine, and an increased excretion of urea occur (the latter sometimes equalling treble its normal amount); whilst lithates (with uric acid, oxalates, and sometimes phosphates) generally, tube-casts, both granular and waxy, frequently, blood-corpuscles not seldom, and pus-globules occasionally, are found on examination of what is secreted. The urinary specific gravity mostly averages 1016, and the temperature of the body is, as a rule, from 100.4 to 102 degrees.

d. That the gravity of the prognosis increases in an equal ratio with the quantity of albumen existing in the urine, independently of the amount of throat-affection or kidney disorganisation, and that an early or late discovery of albumen is of serious import.

e. That local mischief attacking the pharynx, larynx, or other structures, and paralysis subsequently occurring, are entirely the result and symptomatic of a morbid poison affecting the general system, just as the sore throat of syphilis is the sequence of a blood-disease previously contracted.

f. That albuminuria, in any quantity, is due to obstruction of circulation through the kidneys, caused by congestion of the Malpighian tufts, this congestion being produced by paralysis of the nerves supplied to them; but that a mere trace only arises, either from pus or else blood-corpuscles, which have casually entered the volume of urine.

g. That the indication of treatment, in albuminuria occurring to an appreciable degree during the progress of a case of diphtheria, is to remove this obstruction by overcoming the paralysis, and that local Faradisation affords the best method of doing so.

h. That, after albumen has disappeared from the urine, it may return, synchronously with a relapse of diphtheria; and that throughout the whole course of this malady little, if any help, is derived from the use of the clinical thermometer.

[Details of seven cases, tending to support the above views, were here read.]

You will observe that *both* the cases which terminated fatally were those in which no Faradisation was employed, and that *five* others, all of very serious nature, recovered after it was resorted to; *all* were marked by unmistakable evidence of blood-poisoning, and albuminuria, with more or less suppression of urine, was noticed in each. The treatment of all was conducted on the same principle, plus or minus the induction coil; the object aimed at being at first, during the premonitory symptoms, to regulate the secretions, and then to support the strength of the system in every possible way. My sheet-anchor was the tincture of perchloride of iron sometimes combined with glycerine, sometimes with chlorate of potash, and sometimes given *per se*. Stimulants and nourishment in every variety were supplied with no sparing hand. Iodide of potassium proved a disappointment. The customary topical

* Abstract of a paper read at Canterbury, May 23rd.

medication was, of course, attended to. In some instances, the ordinary conductors fitted to most galvanic batteries; in others, "etnas" of this construction were employed ("etnas" shown). Faradism was thus employed over the lumbar regions along the lower part of the spine, and as nearly as possible in the direction of the ureters. Its use in this manner is, I think, an entire novelty.

I must confess that I am thoroughly at a loss to determine the special cause—the *fons et origo* of diphtheria. We know that the blood is charged with urea as soon as, if not before, paralysis of the kidney occurs; but so it is in other diseases, and yet a totally different train of symptoms is witnessed. I look forward to being enlightened on this point by more able and experienced observers.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

CASE OF CRETINISM.

(Under the care of Mr. SAVORY.)

The details of this interesting case have been forwarded by Mr. G. C. Parnell, House-Surgeon.

On June 10th, 1872, Henry B. was brought by his stepmother into the surgery, in order to have some advice respecting his teeth. He was admitted into the hospital under the care of Mr. Savory.

From the evidence of a certified copy of a register of births, he was born on May 18th, 1854, and would therefore be in his nineteenth year, although he looks like a child about eight years old. His height is 2 ft. 10 inches, and he weighs 2 st. 11 lbs. The head is large, but well formed; the hair long, and of a light-brown colour; the eyes are large and wide apart, and, when examined by Mr. Vernon, were found to be healthy; the eyelashes long and black; the nose is broad and flat at the root, the tip upturned, and the openings of the nostrils somewhat rounded; the mouth is slightly open, large, the lips thick, the upper being the thicker; the palate is normal. The teeth, examined by Mr. Coleman, presented the following appearance. The alveolar arches are well developed. In the upper jaw, the first permanent molars are present, but carious. In the lower jaw, there are the central incisors, the first bicusps of each side, and the first permanent molars, the latter also carious. The age as indicated by the teeth is between eight and nine years. The temporary teeth are much worn by mastication, indicating a longer period of use than usual; the permanent teeth are fairly strong, excepting the first molars. The temporary cuspidati are unduly developed; and the lower central temporary incisors were removed to give space.

The neck is thick, measuring ten inches and a half in circumference. There is no goitre, but the thyroid body can be distinctly felt in front of the trachea; and on each side, situated over the clavicles, is a small immovable subcutaneous swelling, imparting a sensation to the touch like a fatty tumour.

The chest is well formed, 21½ inches in circumference; and situated over the upper part of the sternum, and extending over the thyroid gland, is a delicate network of veins. The heart-sounds are feeble. The abdomen is "potbellied." The skin is coarse and sallow; and over the abdomen only, and upper third of the arm, it assumes a slight ichthyotic condition. He has a congenital phimosis. The testicles are both present; and there is an absence of hair on the pubes, and in the axillae.

His limbs are in fair proportion to the rest of the body, but are a little thick. The tibiae are slightly curved, and he is flat-footed.

His father, aged 54, is a basket-maker by trade, and has lived in the vicinity of London all his life. Careful inquiry failed to elicit any history of syphilis or intemperance, although he admits to have had, on rare occasions, a drop too much. He married, when he was twenty-one years of age, his first cousin, and had the following children, all of whom were well formed and healthy. The first, a boy, born fifteen months after marriage, died at seven years old of scarlet fever; the second, a female, died thirty hours after birth; the third and fourth, males, are now respectively twenty-five and twenty-one years of age; the fifth was the cretin; a miscarriage then followed; the sixth was a female, now sixteen years old; then came two miscarriages; and, lastly, a female child. The mother died of consumption, aged 49.

The child was born at the full period; but, two months before birth,

the mother was frightened by a fire that took place close to their house; the labour was protracted, but no instruments were used.

The parents did not notice anything peculiar in the child till he was two years old, when they discovered that his intellect was bad, and that he ceased to grow. He was a healthy child, but suffered from epistaxis, and it was necessary once to have the posterior nares plugged. He has had measles, variola, and scarlatina. He did not walk till he was twelve years old, and he was then sent to school; but the boys laughed at him, and he took a dislike to it. His temper, however, is very good; he talks but little; would sometimes play, his favourite amusement being a horse and cart; and he has always been clean in his habits. At the time of admission in the surgery, he allowed himself to be examined without speaking a word, but since he has been in the ward he now answers in short and somewhat indistinct sentences, his voice being very disagreeable, more like a "croak" than a human voice. If anything please him, his face lights up with a stupid grin, and he names correctly anything shown to him. He walks slowly about the ward, all his movements being marked with a certain amount of deliberation. He never cries, plays with a few toys, has been taught a few things since he has been admitted, and has become a general favourite in the hospital.

OPERATIONS, SATURDAY, JULY 20TH, 1872.

Amputation above the Knee.—This was a case of complete destruction of the knee-joint from acute scrofulous inflammation. The synovial membrane had completely disappeared, and a large portion of the cartilages had suppurated within a few months. A number of abscesses had opened externally, and were constantly discharging, and the ends of the bones were broken down to a pulpy state. Mr. Savory had hoped that excision would suffice to cure the diseased joint; but the boy had so failed in strength during the last week, and his appetite had been so much impaired, that he thought it best at once to amputate, and give him a chance of life. This was accordingly done, nothing remarkable occurring during the operation.

Caries of the Surface of the Tibia.—This was a case of chronic inflammation of the surface of the tibia. There was no evidence of dead bone enclosed in a new sheath; but for many months there had been chronic inflammation and suppuration of the surface of the bone. Some months ago, the integument covering the tibia was also much inflamed and thickened, but rest in the hospital had cured this. Mr. Savory now made an examination of the tibia, to ascertain its precise condition, but did not think it wise to interfere any further than to gouge its surface. He did not think that recovery would ever take place naturally, but yet felt disposed to wait longer before amputation. This condition of the bone he considered very uncommon.

Necrosis of the Tibia.—Mr. Callender removed almost the entire length of a necrosed tibia from a boy who had long been suffering from abscesses in the leg. Only the epiphyses of the original bone were left. The necrosed bone had been quite fixed until a few days previously, when it showed signs of loosening, pus freely running from one opening when the probe was inserted in another in the upper part of the tibia. This was not the case with the lower part of the spiculum, which seemed yet quite fixed. Mr. Callender made a free incision along the length of the bone, and, after taking away the front portion of a new sheath, removed almost an entire tibia, quite necrosed. He thus hoped to entirely cure the disease. The cavity was filled up with oiled lint, and the wound closed in the usual way.

KING'S COLLEGE HOSPITAL.

OPERATIONS, SATURDAY, JULY 13TH, 1872.

Severe Rectal Fissure complicated with Fistula.—This patient came to the hospital imagining that she suffered only from piles, but, on examination, rectal fissure and two fistulae were found. Mr. Henry Smith cut the fibres of the external sphincter through the fissure, and laid open the fistulae freely. He stated that the only bad result in such cases was occasional incontinence of feces, which might be obviated altogether in most cases by taking care only to divide the external sphincter.

Varicose Veins.—Sir Wm. Fergusson operated on a woman for varicose veins by two needles in the usual manner. The veins were not extraordinarily enlarged, but they gave very much pain and irritation, making the patient's life a continual misery.

Tic Douloureux.—The patient had been operated on by Sir W. Fergusson five times for the same disease during the last six or eight years. It had always returned with great severity. All the ordinary means had been tried to arrest the neuralgia, but without effect; and the only relief the patient found was after the operation of dividing the