4. The pulse is not increased; but diminishes in frequency, and increases in power.
5. Delirium is not caused, but may be prevented from occurring; or if present, may diminish or cease.
6. The tongue may remain moist or become moist, and the fever diminish while a patient is taking twenty-four ounces of brandy in as many hours.

Original Communications.

CASES OF DIPHTHERIA.

By G. M. Humphry, M.D., F.R.S.; Surgeon to Addenbrooke's Hospital, Cambridge.

HITHERTO there has been no epidemic of diphtheria in Cambridge, though isolated cases have occurred from time to time. The following are some of those which I have seen.

CASE I. Albuminuria and Paralysis following. An undergraduate, tall, thin, and not strong, coming from Norwich in the autumn of 1860, caught cold and had rather severe diphtheria. The chlorid of iron, wine and beef-tea, gargling and sponging the fauces with solution of chlorinated soda, constituted the treatment. The throat gradually cleared; but he remained weak, and returned home. There the urine became loaded with albumen, almost solidifying under heat, and of low specific gravity. Partial paralysis of all the voluntary muscles supervened; he could scarcely stand; could not button or unbutton his clothes; deglutition was slow and difficult, and articulation hesitating and imperfect. Most serious apprehensions were entertained by his friends and medical attendant. I advised his immediate removal to the seaside in the south of England, so that he might be taken out into the air several times a day. He went to Hastings, and lived almost in the open air. Improvement began at once. He slowly regained voluntary power and general strength; the albumen decreased in the urine, and finally disappeared; he returned to Cambridge in the spring, and has been well ever since.

CASE II. Tracheotomy affording temporary Relief. Miss , aged about 15, rather delicate, with large tonsils, had severe diphtheria, without apparent cause, in the summer of 1862. The swelling of the tonsils, fauces and pharynx glands, with thick, dirty white deposit upon the fauces and adjacent parts, caused so much difficulty of breathing that we were meditating removal of the tonsils or tracheotomy. I thought removal of the tonsils, which met in the middle line, would afford some relief; perhaps as much as opening the trachea, because the impediment was evidently in the isthmus faucium. However, the difficulty of breathing had in two hours increased so greatly that it was desirable to resort to the more sure method, if to any. Accordingly, I opened the trachea, and placed a tube in it. At the time of the operation, the breathing was greatly embarrassed, the lips quite blue, and she was scarcely conscious. Chloroform was administered, and did not increase the dyspnoea. After the operation, the breathing was easier; colour and consciousness were restored; she slept; and, for twenty-four hours, hopes of restored health were entertained. These were soon disappointed by a recurrence of the dyspnoea, now depending evidently upon effusion into the bronchial tubes; and shreds and flakes of dirty membranous lymph were occasionally coughed up through the tube. She died about forty hours after the operation.

CASE III. Removal of Tonsils, Temporary Relief. Mr. , aged 25, was in the habit of going before breakfast, to his garden, and mixing some very fastid materials composed of urine and other ingredients, for manure. The operations from the "throat" for some time; and, in July 1862, he was attacked with severe diphtheria. He was so nearly choked that he longed for some operation to relieve him; and I saw him with his medical attendant. There were swelling of the fauces, and a thick foul membranous coating upon them and the soft palate. The trachea was much enlarged and coated, and, nearly filling up the isthmus faucium, seemed to be the chief cause of the dyspnoea. I accordingly removed it; and the relief given was so great, that his friends considered the danger was gone; he took food well, and even went down next day into his shop. That night he had no difficulty in breathing; and the following day he was weak; respiration was noisy and much embarrassed, apparently from effusion into the bronchial tubes. He died in the night.

CASE IV. Affecting the Larynx and Trachea only; Temporary Relief from Tracheotomy. Master , aged 14, came home from school in March 1862 with slight sore throat. This subsided, but was followed by difficulty of breathing. Leeches, sponging, etc., were employed by the medical man; but, the symptoms not diminishing, I saw him. There was nothing abnormal in the throat; but the back of the tongue and middle portion of the fauces were thickened and coated. The trachea was much enlarged and coated, and the breathing was quicker; and the following day he was weak; respiration was noisy and much embarrassed, apparently from effusion into the bronchial tubes. He died in the night.

CASE V. Affecting Nose, Fauces, Eye, and Pericranium. An infant, two months old, had what appeared to be severe cold in the nose. This caused a good deal of difficulty in breathing; but a violent convulsive fit was the first serious note of alarm. I saw the child then with the gentleman in attendance. The nostrils were blocked up with whitish, tenacious, serous, flaky secretion, which was evidently of diphtheritic character; and, in a day or two, there was a film of the like substance upon the edge of the palate. By careful syringing, the nostrils were cleared and the child breathed better; the throat also improved, and she took food pretty well, so that we had good hope of recovery. The improvement, however, did not continue; and after a few days the eyelids of one eye were closed with a yellowish film, which, in spite of careful removal and frequent syringing with water and mild astringent solutions, spread over the rest of the conjunctiva; the cornea became opaque, and gave way. A periostial swelling was observed upon the forehead, followed by others upon the temple and occiput. The coating reappeared upon the fauces; the child refused its nourishment, and died two weeks from the commencement of the attack.

CASE VI. Hemiplegia Superfening. Master , aged 11, in a neighbouring village where diphtheria was prevalent, was attacked on June 7th. I saw him a few days afterwards, on March 7th, the false membrane was beginning to separate from the fauces, under frequent gargling with bichorate of soda and liberal diet prescribed by the surgeon in attendance. He had much pain in swallowing; and there was some difficulty in inducing him to take food. He appeared, however, to be
going on well, and the throat was quite clear, when a fortnight from the commencement of the attack, he became uneasy in the head, and, during the night, lost the use of the right arm and leg. The difficulty of swallowing was increased, and the speech was affected. He gradually recovered the use of the limbs, but had occasional uneasiness in the head, with somewhat of a way of depression and wandering. There was continued difficulty in swallowing; and, now and then, a violent fit of choking, as though some particle of food found its way into the larynx. It was not, however, clearly made out that this actually happened. I saw him on April 11, when he had an interval of several days, and found extreme dyspnoea, caused evidently by this air-passage, through which he was unable to expectorate. He died that night.

On post mortem examination, the fauces and larynx presented nothing very peculiar; the mucous membrane was smooth and pale. The trachea and bronchi, large and small, contained a great quantity of frothy mucus; but there were no other evidences of inflammation here or in the lungs. In the superficial part of the left cerebral hemisphere, corresponding with the upper edge of the temporal bone, was a small suppurated spot, with softening of the adjacent brain substance.

Sudden Effusion into Bronchi Superinfection.

An undergraduate caught cold, and had acute inflammation of the left tonsil, with a diphtheritic patch upon it; and, swelling of the neighbouring absorbent glands and adjacent parts. The inflammation was so acute and painful, that I directed a few leeches to be applied, which gave some relief. The membraneous deposit spread over the throat and palate, and then gradually cleared off; but the pain in swallowing increased. He could be persuaded to swallow only milk, and very reluctantly gargled or permitted any cleansing of the throat. Still, he held his ground for a fortnight; was able to walk about his room, and went for a drive; so that we hoped he would gradually get better. There was no indication of affection of the trachea or lungs, till one night he was attacked with cough, bloody expectoration, and dyspnoea, with rales all over the chest. In the fluid expec- torated, we found some branching strings of tenacious mottled substance, which was evidently casts, in lymph, of the air-tubes. He could not swallow any- thing; and rapidly sank and died in the middle of the next day.

Case VIII. Anasarca and Albuminuria quickly super- vening upon Slight Diphtheria. Miss—aged 3, a healthy looking child, with small white patch upon the left tonsil, and swelling of the neighbouring absorbent glands. The white patch excited the apprehension of the surgeon, because it remained, and re- turned when removed. This was the state when I saw her a few days after. There was very little redness or swelling; but general weakness and unwillingness to swallow. At first, she improved a little under steel, with beef-tea, etc.; but then relapsed. The white patch in- creased, and the breath became foul. At the same time, albumen appeared in the urine; general anasarca, pro- stration, and dyspnoea, quickly followed; and she died a fortnight from the commencement of the attack.

In each of Cases No. 2, 3, and 4, the operation pro- longed life twenty-four hours. The time thus gained may be dearly purchased by tracheotomy; but is well worth the minor operation of removing the uvula (as in No. 9) to tonsil. The difficulty of breathing is often at first entirely due to the impediment caused by swelling of the fauces; and the question of affording relief by removal of the uvula or tonsils is, in some cases, well worthy of consideration. It is easily done, is unattended with danger, clears the way for the passage of air, so diminishes the hour of breathing, and has the advan- tage of lessening the amount of foul air reaching the throat. It may sometimes answer instead of tracheotomy.

I believe that in Case ii, the removal of the tonsil would have given as much temporary relief as was afforded by tracheotomy. Moreover, we must not forget that the irritation caused by the presence of a tube in the trachea may predispose to the extension of the malady in that direction. Nevertheless, the experience of others show that in a few cases life has been saved by tracheotomy.

The occurrence of albuminuria and anasarca has been repeatedly observed by others; and afford an interesting link between diphtheria and scarlet fever; that of general paralysis (as in Case 7) has also been observed, not unfrequently, and has often been recovered from. Hemiplegia (Case xvi) is more rare, and is a more alarming symptom. It strongly indicates a definite lesion of some part of the brain.

The affection of the larynx and bronchi, with scarcely any warning in the throat, as in Case iv, has been observed by others. It is very deceptive. In treating that case, we had no idea that we were dealing with diphtheria. The true nature of the disease was revealed to us only by the post mortem appearances. Further experience will probably show the disease commencing at various parts of the body, or modifying the inflammatory affections of various parts.

I have not met with a description of diphtheria of the tonsil (No. 9), though the condition has probably been observed by others.

The extension of the inflammation into the trachea and bronchi, and the consequent effusion of the diphthe- ritic membrane, or of mucus into them (Cases ii, iv, v, vii), is one of the most fatal tendencies of this formidable malady.

Cases of diphtheria were occasionally met with in former years. The following took place in the Norwich Hospital, while I was a student there in 1837. A man, aged 24, underwent amputation in the thigh in consequence of acute suppuration in and about the knee, follow- ing upon a contused wound. He was in a low, feverish state, and had slight sore throat, when the opera- tion was performed. This increased, was attended with cough, dyspnoea, and delirium, and he died, apparently suffocated, two days after the operation. The soft palate, pillars of the fauces, and part of the pharynx, were covered with a distinct layer of dirty lymph adhering to the surface. The mucous membrane of the larynx, trachea, and bronchi, even to the smallest branches, was also coated with a layer of lymph. The oesophagus was quite free.

THE TREATMENT OF THE EARLY STAGES OF HIP-JOINT DISEASE IN CHILDREN.

By WILLIAM PRICE, M.D., Margate.

Having held the appointment of surgeon to the In- firmary for Scrofulous Children at Margate for some years past, I have enjoyed unusual opportunities of observing the varied phases of hip-joint disease occurring in children of strongly marked strumous habit. The object of the present notice is not to adduce a new method of treatment, but to direct attention, through the pages of the British Medical Journal, to the un- doubted superiority of one plan of treating the earlier stages of morbus coxae over all others; viz., the con- tinued employment of the long splint.

Many provincial surgeons now discard the long splint altogether in the early stages of hip-joint disease, giving preference to spinals made of pasteboard; carefully moulded over the buttock, reaching somewhat above the ilium, and extending down the upper half or two-thirds of the femur. They argue that the patient is thereby enabled to take early out-door ex- ercise (tho' on an elastic surface) and enjoy the wards of a hospital, which the long splint necessarily entails. That much benefit is derived from the gutta-