majority of them, although the connection between this and the convulsion may have passed unnoticed. But is albuminuria always antecedent? Not to needlessly obscure the subject in your minds, but to warn you of a source of fallacy, I must state that, in some cases of fever, there may be an excess of urea and the products of tissue-waste in the blood, progressing even to the production of uræmic convulsions, without the presence of albumen in the urine. The secretion in this case is scanty. The urea is found in deficient quantity in the urine; while in the blood we find alterations produced by its presence, or of the substances it gives rise to. We may have to seek the advice of the professional chemist to determine this point; and I have more than once been most efficiently aided in solving the obscure clinical problem by the skill of our pathological chemist, Dr. Hare. Again, convulsions, at any time and from any cause, may themselves produce transient albuminuria, so that the detection of albumen in the urine for a day or two after the attack is not sufficient to establish its uræmic character.

In cases where albuminuria and undoubted disease of the kidney exist, and convulsions have happened, does the renal difficulty antedate the fever, or, is it a complication? It may be either. Chronic nephritis grants no immunity from typhoid fever; on the other hand, an engorgement of the kidney, an accumulation of epithelium in the tubules, and the beginning of a parenchymatous nephritis are met with, as part of the typhoid fever process, and may be sufficient to clog the kidney to such an extent as to interfere with its function. You will ask me how are we to know if the kidney disorder belongs to the fever or not? We cannot always know. It is true that considerable quantities of albumen, the presence of markedly granular or fatty casts would determine the antecedent nature of the malady. But some tube casts may also be found in the urine coming from the hyperæmic fever kidneys; and we may not detect them at one examination in the urine of a chronic renal affection. The presence of albumen from the onset of the fever would greatly favour the supposition of the latter; for in typhoid fever albuminuria is not an early symptom. Again, we may have the lesions determined by the fever process adding to the embarrassment of an already diseased organ; and thus producing the inaction which has led to the uræmic seizure. Such I take it happened in the case which we have been discussing this morning.

Now, I have conveyed to you a wrong impression if I have led you to suppose that convulsions must always happen in consequeuce of the uræmia met with in fevers. Coma is, perhaps, the more common result; or a state of half-coma with convulsive twitchings. We have recently had a case of uræmic coma in the hospital which some of you have seen. . . .

But I must revert to the subject I have been attempting to elucidate, convulsion in typhoid fever. We have found that it may be due to a variety of causes, though uræmic is the most prominent. The *prognosis* will of course depend very much on its exciting cause. It is generally unfavourable. The most favourable prognosis is, if the seizure be in an epileptic and an outbreak of epilepsy, or if the subject of the convulsion be a child overcome at the outset with the fever poison, or be affected with an apex pneumonia; of the uræmic convulsion, that associated with retained urine in a distended bladder justifies the most hope.

The *treatment*, too, will largely depend on our knowledge of the cause. I will merely point out how important it is to take care that the broken-down waste is not retained in the body, and that the kidneys are kept freely acting; and how readily careful attention to the state of the bladder may prevent a serious mishap. During or soon after the fit we must see to it that the head is kept cool, and the flow of blood in the body equalised. Cupping at the back of the neck, and even general blood-letting, suggest themselves among the remedies to diminish the vascular tension. These remedies are potent also for evil; and it must in an individual case always remain a matter for judgment, whether the patient is in greater danger from a local injury to brain or lung and the general turgescence of the vessels, or from the extreme debility that attends the fever. In deciding this the pulse and the state of the first sound of the heart are our chief guides. But I cannot now further enter into this subject; it involves much, having a wider range than can be accorded to my discourse. Let me only add that, if the convulsion be due to apoplexy, and associated with one-sided palsy, the abstraction of blood seems to me imperatively indicated. If the convulsions are epileptiform in a subject predisposed to epilepsy, bromide of potassium will be our main reliance. But, whatever treatment be employed, let it be active, and take into account the pathological condition which has occasioned the outburst.—*Med. News and Library.*

CLOSURE OF THE VULVA FOR VESICO-VAGINAL AND RECTO-VAGINAL FISTULA.

BY DR. GOODWILL.

Thirteen years ago this woman went into her first labour, during which she was attended by two most excellent obstetricians. It happened to be an arm presentation, giving no chance for turning, but showing a tendency to spontaneous evolution. While one physician was away and the other asleep the child was born. As a result of these complications she had very extensive sloughing of the upper and outer wall of the vagina, to