

Original Communications.

Treatment of Meningitis, by William Fuller,
M.D., Professor of Anatomy, University of
Bishop's College.

Gentlemen, with a view of provoking a discussion on an important subject,—the treatment of cerebral meningitis, I beg to submit some observations made in a few cases which I am sorry to say were not preserved by a daily record at the time. I do not intend to state more than the impressions derived from a moderate experience, and the results in general of certain procedures in treatment.

The stages of this disease are described as, 1st, that of cerebral excitement; and, 2nd, coma as the result of effusion, causing compression of the substance of the brain and death from general paralysis. In my experience the P.M. examination revealed in the great majority of cases not what I should expect from the theory of these stages. It is observed in only a comparatively few instances that the cavities of the brain are greatly distended by effusion, while in the majority only a small quantity of fluid is found in the ventricles and a semi-solid lymph is seen in the sub-arachnoid spaces, particularly at the base, which was insufficient to account for the coma as resulting from compression. In one case, which exhibited all the signs of compression from effusion, and the fontanelle was very prominent, a trocar was thrust into the lateral ventricle two days before death and no fluid escaped, nor were any other symptoms produced by the operation.

In reflecting upon this, and, also, by observing the effect of remedies in this condition, I am led to conclude that coma, in most cases, is not a paralysis resulting from interference of the nerve centers by *compression*, but by *irritation* which may be either at a *distance*, or, in the meninges themselves, *centric*. The former peripheral irritation—*spurious*, the latter centric—true meningitis—between which it is often very difficult to distinguish, and impossible, unless some distant irritation, as worms, &c., is discoverable as a cause. As to the results of irritation on the

different organisms, they may be arranged as follows :

On Brain producing	1 Excitement	2 Coma
“ motor-nerve “	1 spasm	2 paralysis
“ vessel “	1 pallor	2 flushing
“ nerve of sense “	1 pain	2 anæsthesia

and these opposing conditions all resulting from the same cause—irritation, directly or indirectly applied to the nerve centers—are amenable to the same remedies. The nerves distributed to the body are mere projections of the brain, and as physiologists, we are aware that excitement applied whether central, or peripheral, induces a similar condition throughout the whole tract, as well as in associated centers and their connections, in a minor degree. This explains why a peripheral irritation is frequently the cause of central inflammation, and, consequently, the doubt as to whether a case is one of spurious or true meningitis. If the patient recovers most likely it would be pronounced *spurious*, if he dies there is no doubt but this was a *bona fide* case, and P.M. observation reveals the fact. There is no kind of satisfaction in thus making a diagnosis from the final result. By way of illustration I will give a short case: A child, four years of age, of delicate appearance, had been indisposed and listless for a couple of weeks, frequently coming in from play and complaining of being tired and lying down; she got worse, complained of headache, and vomited several times, had no appetite, bowels rather confined; when I saw her she looked pale in general but occasionally a flush passed over the face. She got some worm powders, and a mild purgative, with no benefit or sign of worms. I gave 10 gr. doses of potass bromide every three hours, and again every two hours for a day or two, with little or no improvement in the symptoms. On the fourth day she was much worse in appearance, was very drowsy and upon wakening immediately relapsed into sleep, which was deep, and breathing slow; vomiting ceased and there was frequent flushing of the face, the eyes were half open and divergent squint, pupils dilated moderately, pulse ranged about 120, and temperature 103° during this period, more or less varied by bathing and wet cloths applied to the skin. At this juncture I called in Dr. Rodger, who concluded with me that we had a case of meningitis to deal with, and we gave