

and snoring, incapable of being roused by a pinch or loud calling, and could swallow very indifferently, so that a teaspoonful of water poured into the mouth caused her to choke before it was swallowed. I gave her $\frac{1}{2}$ gr. morphia, and in two hours she was capable of giving a sensible answer to questions. This was observed by my friend Dr. Rodger, as well as myself, at different times during her illness. She died in 4 or 5 days subsequently, after she had ceased to take morphia, and was supposed to be improving until symptoms of paralysis of the pneumogastric nerve set in suddenly, indicated by very slow breathing, rattling of mucus in the trachea, very rapid pulse, and final suffocation,—a paralysis due, probably, to irritation, as in the case of the coma, or, as I have seen take place, in limbs, in other cases. A child two months old was found comatose, pale, breathing about 4 or 5 times per minute, with an occasional spasmodic action of the diaphragm. The abdomen was tense and knees slightly drawn up, from which I concluded that it was irritation in the abdomen. I gave small doses of morphia every $\frac{1}{2}$ hour until the breathing got somewhat better, then left instruction to give two drops of paregoric every hour until relieved. I was surprised next morning to see the child quite recovered. It had two or three slight attacks during the night which was relieved by the paregoric. This case was, of course, only irritation of the brain, producing coma, and was peripheral. I find, in referring to the notes of a case of meningitis, that in two instances, hemiplegia was relieved by morphia, as well as the spasms that preceded it. In this case there was very little serous fluid in the ventricles, but a large quantity of organized lymph at the base of the brain.

I have used morphia in the convulsions in hopeless cases, sometimes rendering the patient conscious for a time, but in one case the convulsions continued after repeated and large doses, though at first it prevented them for a time. I had no P.M.

During the epidemic of cerebro-spinal meningitis, which occurred here about four years ago, I used in all my cases almost morphia alone, with the view of relieving the pain and subduing vascular disturbance and spasms, with, I think, good results, and no evils that I observed. I lost four cases out of ten.

Belladonna appeared to me to increase the

symptoms, and, I thought, caused a convulsion, though given in a very small dose, 2 gtt. of tincture.

Quinine lowered the temperature without creating or increasing head symptoms that I observed.

Purgatives always appeared to me to make the patients worse.

Leeching appeared to have saved one case and bloodletting seems to be a reasonable remedy, since, by relaxing the vascular system, it causes an equal circulation of blood throughout the body, the same as is obtained by morphia.

Hot applications to the head are soothing and relieve the headache. I have applied stupes and, what is better, bathing the head with warm water; patients who were old enough to express themselves said it relieved and soothed them and gave refreshing sleep, and it also diminished the flushings of the face. Cold, especially the ice-cap, as generally used, caused shuddering, and was disagreeable. I think, as a rule, that what is pleasant to the feelings of the patient, both in medicine and surgery, is right, and that the contrary is wrong.

The treatment which I adopt in cases when I suspect meningitis is, 1st. To regulate the temperature, that is, keep the patient cool but equally warm all over. 2nd. Unload the bowels by a mild purgative, remove worms, &c., if any cause of irritation is present. 3rd. Quietude and soothing medicines, the use of which is indicated by flushings and irregular cutaneous circulation, which are the premonitory symptoms of spasms or coma, should the latter symptoms, spasms or coma supervene, I increase the dose. 4th. Frequent bathing the head with warm water.

The points which I wish to bring out for consideration are, 1st. That coma is, in most instances, not due to the pressure of effusion, but to irritation. 2nd. That opiates are not contraindicated in meningitis, even when coma is present, or threatened, if there are irregularities of cutaneous circulation or spasms, and that opium actually, by relieving irritation, dissipates the coma. 3rd. That warm water is more agreeable, more soothing, and more efficacious than ice-caps.

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