temperature 100°; respiration 26, shallow. When asked to protrude his tongue, he did so, but it got fixed between the teeth, which were gradually closing upon it involuntarily, and I had difficulty in getting it back, as he bit it severely, causing it to bleed much. No power over jaws, but can move his tongue and swallow fluids with difficulty. No paralysis of sphincters or of general muscular system, but it seems to be confined to the head and face. Spasms tetanic. As he had had no sleep, I gave one-third of a grain of morphia hypodermically. To continue medicine.

10th.—11 A.M.: Slept two hours yesterday after morphia. Bowels not open. Pulse 104°; temperature 100; respiration 26, shallow. Conjunctivæ much injected; pupils normal. Fluids return through the nose when drinking. Quite sensible. Can open the jaws a little. Marked opisthotonos and strong convulsions of whole body every few minutes. Ordered chicken jelly to be added to his diet, and increased the dose of chloral to ten minims and gave it less frequently—every four hours.—8 P.M.: Slept at intervals through the day; drowsy. Taking food well. Paroxysms not so frequent, but quite as severe. Pulse increasing in rapidity, 142; respiration 30; temperature 101.1°. Micturates freely. Skin dry. Breathing quick, but free from crepitations or rhonchus. Can open his teeth to the extent of one inch. Quite conscious; says he is in no pain.

11th.—11 A.M.: Has passed a quieter night, but restless since daylight. No opisthotonos during my visit, but persistent trismus. Bowels not open. Pulse 120; temperature 101°; respiration 30. Taking nourishment through a tube. Complained of great pain over cervical vertebræ.—8 P.M.: Has slept at intervals during the day. No twitching during sleep. Taking food fairly well. Skin hot, congested, and dry. Pulse 132; respiration 30. Abdominal diaphragm and intercostals not working in rhythm. Bowels slightly moved. Says he feels better. A severe attack of opisthotonos occurred during my visit, otherwise the paroxysms have been less frequent, though three occurred to-day. Can open the jaws decidedly better, but cannot protrude the tongue. Cannot move his legs, but there is no loss of sensation.

12th.—11 A.M.: Has passed a restless night owing to thirst and the extreme heat of the weather. Fits less strong. Takes nourishment well through tube. Temperature 100.1°; pulse 110°; respiration 25. In no pain to-day. Can put out his tongue better, and can open the jaws wider. Tongue clean. No opisthotonos. Gave a soap enema, which brought away a normal motion.—8 P.M.: Has been restless through the very hot day (100° in shade), but slept an hour in the afternoon. Convulsions much quieter. No opisthotonos. Can open the jaw and protrude the tongue much better. Pulse 108; temperature 100.1°; respiration very jerky and irregular, 26. Asleep when I left. To continue the chloral and bromide every four hours; ordered the yolks of two eggs to be given in milk, and plenty of chicken jelly through the night.

13th.—Noon: Has had a better night and taken all the nourishment ordered. Slept four hours. Still complains of pain in his neck and back. Is having slight convulsive spasms of the whole body every few minutes, but is quite conscious during them. Pulse 110; temperature 101°; respiration 38.—9 P.M.: Very restless during the heavy thunder-storm which occurred this afternoon, and was with great difficulty kept in bed. Convulsions have now returned stronger than ever. Respiration 30 ("Cheyne-Stokes"); pulse 132; temperature 101.2°. Gave four minims of ergotine hypodermically, and added ten minims of the liquid extract of ergot and the chloral mixture every four hours.

14th.—Noon: Slept one hour and a half during the night, and took a fair quantity of milk and broth. Convulsions less severe, but more frequent. Temperature 103°; pulse 160; respiration "Cheyne-Stokes" in character. Mucous râles all over chest. No loss of consciousness, but evidently sinking. Ordered one drachm of rum in milk every two hours.—6 P.M.: Has been gradually getting weaker, but no loss of consciousness. Pulse increasing in rapidity, almost immeasurable. Says he is in no pain. Convulsive twitches all over the body incessantly. Jaw relaxing. Died, quite conscious to the last, at 10 P.M. No necropsy would be permitted.

Remarks.—I much regret that I could not obtain permission for a post-mortem examination. This case appeared to me to be primarily one of spinal meningitis following prolonged exposure to the sun, the lesion being situated in the upper part of the cervical portion of the spinal membranes. There was probably a secondary affection of the cord itself, profoundly involving the motor nuclei, and

later on the medullary portion, exciting them to the state of irritability manifested during the progress of the case. The vagus remained unaffected so far as its cardiac fibres were concerned, I think, as evidenced by the little disturbance of the heart's action; but there was, I consider, an involvement of the respiratory centre accounting for the want of coördination of the intercostal muscles with the diaphragm. The persistence of the intellectual faculties and the absence of pain, during the greater part of the disease, points to the non-tendency I have observed in similar cases to the upward spread of the lesion, to the brain itself, as one would expect. The body temperature did not attain the height of many recorded cases of less severity, and the non-loss of control over the sphincters, is, I think, an unusual feature in so serious a lesion.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A SIMPLE METHOD OF PROCURING DEGLUTITION WHERE SUCH IS IMPEDED BY REASON OF EXTENSIVE ULCERATION OF THE EPIGLOTTIS.

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ONE of the most distressing symptoms accompanying laryngeal phthisis with ulceration of the epiglottis is the difficulty patients experience in swallowing. Especially is this the case in advanced conditions where the epiglottis is more or less completely destroyed. In such circumstances the swallowing of even a teaspoonful of water, or liquid of any kind, is all but impossible, from the violent cough that is excited in consequence of the passage of some of the fluid into the larynx and trachea. Such patients are generally tormented with a thirst which they cannot satisfy, and the painful efforts they make to get down a few drops of liquid, and the terrible spasms of coughing and pain thereby produced, are truly pitiable to observe. One of my patients in the last stage of laryngeal phthisis, and in whom the epiglottis had more than half disappeared from ulceration, lately taught me a "wrinkle" which others may find of service. He informed me that he had discovered a method of drinking even large quantities of fluid with ease, and (in as nearly as possible his own words) said, "I thought of how we used to drink when we were boys, out of a running brook, by lying down upon the bank and putting our mouths to the water, and I resolved to try the plan. I sent for a piece of indiarubber tubing, and found that by adopting the same position I could drink off the whole of a tumblerful of water with ease and comfort." I asked him to give me a demonstration of the feat, and lying stomach downwards upon the couch in my consulting-room, with the head and arms hanging free over the end, and with the feet higher than the rest of the body, he took a large tumblerful of water in both hands, and placing the open end of a piece of indiarubber tubing (about six inches in length and with a vulcanite mouthpiece) in the fluid, and the mouthpiece between the lips, drained off the contents without stopping, and with the greatest ease and comfort. Not the slightest pain or cough accompanied the act, showing that none of the fluid entered the larynx. The feat was the more remarkable to me, who had often seen him making great efforts to swallow fluids, but unsuccessfully, in the sitting position. In the ordinary position a teaspoonful of fluid was as much as he could manage to get down, and this was accomplished only at the cost of much pain and terrible paroxysms of coughing. The plan is simple enough, and is one which will procure relief for other patients afflicted with the same terrible laryngeal conditions; as I have never seen it applied before, I venture to mention it to those who have to treat similar conditions, and I am sure they will find it an excellent method of alleviating one of the most distressing sufferings of patients of this class.

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