90; respirations 18. The patient took 15 grains of quinine, and had no return of fever.

IV.—Rany Allie, aged 24, was admitted into hospital after suffering from fever for three days: he was at once given 30 grains of quinine on the 27th July, 1870. At 5 a.m. the temperature was 104; at 7 a.m. it was 101; and at 4 p.m. it was 99. The man had no return of fever, and was discharged from hospital, cured, on the 3rd of August.

Connected with this subject are the circumstances of another class of symptoms by no means uncommon among native patients suffering from malarial fevers in this part of India. The following is a case in point:—

I.—Saboo, aged 35 years, was admitted into the Native Hospital on the 24th of August, 1872, suffering from violent purging and vomiting, which had commenced some eight hours before he came under our care. The patient, it appears, had been laboring under an attack of remittent fever on the 22nd and 23rd; but on the morning of the 24th, in place of the fever making its appearance, he was seized with the symptoms above described.

On admission, the temperature of the patient's body was found to be 96°6; respirations 32: he was almost pulseless; body cold and clammy; eyes sunk; skin inelastic; voice very weak, but not choleraic; thirst intense. He was frequently purged, and the stools, though as watery as those of cholera, contained traces of bile.

The patient was ordered stimulants, hot bottles to the extremities, and a continual supply of ice.

He gradually improved; but on the following morning I found him, at 6 a.m., in high fever (he had not made water since he came into hospital). The temperature of his body was 105°; pulse 140; respirations 26. He was ordered to continue his stimulants; warm milk was constantly administered, and 30 grains of quinine were immediately given to the patient: the temperature of his body fell to the normal standard by evening; and he gradually recovered his strength, and left the hospital, cured, in the course of a short time.

II.—Dhomnah, aged 15, was admitted into the Native Hospital on the 29th of August, 1872, in a state of collapse. His relations reported that he had fever for four days prior to the 29th. On the night of the 28th he was seized with vomiting and purging, and brought to the hospital the next morning. At the time of his admission the patient looked exactly like a person in the collapse of cholera: the body felt cold, skin inelastic, eyes sunk, constant calls for water to drink, and he was pulseless. His voice however was, as in the last case, not that of a person affected with cholera: his motions were watery, and passed under him in bed, but they were slightly colored with bile. The temperature of his body was 100°, although he felt cold and clammy to the touch; respirations 32.

In this case we commenced giving 10 grains of quinine, with brandy and sulphuric ether, every half hour, until four doses of the quinine had been administered, when the stimulants were continued without the quinine. Ice *ad libitum* was given, and hot bottles applied to the abdomen and extremities.

On the morning of the 30th the temperature of the patient's body was normal; and although he got three distinct relapses of fever before he left the hospital, they were on each occasion treated with large doses of quinine, and the boy was ultimately discharged from the institution cured.

MESMERISM (?)

By P. CULLEN, M.D., *Civil Surgeon, Hoshungabad.*

MUSSUMMAT NUNNEE, aged 24 years—a Kurmee by caste—was admitted into hospital on the 1st March, 1872.

History.—She states she was married about twelve years ago, but did not go to her husband's house for two years afterwards. The first time she went, she remained well and hearty in his house for about eight days, and then fell into an insensible state, in which she remained for two or three days, when her husband took her back to her parents, where she became all right in a short time. After the lapse of about one year, she again went to her husband's house and again became insensible, and was carried back to her parents: and in this way, for about four or five years, she passed backwards and forwards; each time she went to her husband, or he visited her at her parents, she became insensible, and remained so as long as her husband continued anywhere near her.

In this state she neither eats, drinks, nor moves, but passes her excretions involuntarily; and, according to the statement of her father, has remained insensible for eight or ten days at a time, and became so emaciated and exhausted that her parents thought she would die; but always within a few hours of her husband leaving the place, she regained consciousness, and speedily recovered her health.

She made an application to the court against her husband for maintenance, on the plea that she cannot live with him. She does not complain of any ill treatment or unkindness, but, on the contrary, says her husband has been kind to her, and has a comfortable home for her, but possesses some influence over her, such that the moment he comes near her she loses all consciousness. She came into court quite well, but on her husband being called in, she became insensible; and in this state she was conveyed to the dispensary.

For the first two days—*i.e.*, until the morning of the 3rd March—she remained insensible; her pulse was 88, compressible; breathing soft and natural; limbs quite relaxed, and pliant; and she appeared as if under the influence of chloroform. A cold bath was given, but did not rouse her. On forcibly opening the eyelids, the pupil contracted slightly, and she turned up her eye, as if away from the light. She could not be got to swallow anything, but during the night of the 2nd March passed her urine very copiously in her bed, and while insensible.

I was advised to send away her husband. This was done on the evening of the 2nd, and on the morning of the 3rd she opened her eyes and got up as if from a deep sleep, and began to talk and eat and drink; and she remained quite well up to the 13th March.

On the evening of the 12th March, after it became dark, her husband was muffled up, to disguise him, and walked twice through the ward where she was. The next morning she said she felt unwell, and that her husband was somewhere near her; that she could tell so from her sensations, but denied having seen him anywhere about. On the evening of the 13th, the experiment with her husband was repeated, when she gradually fell off, as into a sleep, and remained quite unconscious all the next day; her husband being then sent away, she regained consciousness the next day.

In this way several trials were made: sometimes her husband was placed in a separate ward, with merely a door between them; sometimes made to pass behind her, while she was kept in conversation with the hospital matron; but it was only when her husband got a view of her face that she was affected, otherwise proximity gave him no power to influence her in the least.

On the 1st of April, when she was in an insensible state, to prove to my hospital assistant and others that she was not feigning, I applied the electro-magnetic battery to her; the current was strong enough to make my arms shake. I applied the sponges to her arms and legs and to her chest, but the only result was a deep, heavy sigh. She recovered consciousness about 3 p.m. that day, and did not know that anything had been done to her, but admitted that before she became insensible she had seen her husband pass through the dispensary compound.

Her husband was after this dressed up as policeman, then as a Madras sepoy; but, no matter what the disguise, if he got a view of her face she was at once influenced, and that without

having recognized him; and so long as her husband remained in her vicinity she could not be roused, but on his being sent away, she. in from six to twelve hours, recovered her senses, and was quite unconscious as to anything that had been done to her while she was insensible.

Endeavours were made to try and persuade her husband, that, as he evidently (though quite unconsciously) mesmerized his wife, if he would try he could, perhaps, remove the effect; but this seemed to frighten him, and he could not do it.

The woman left the dispensary on the 30th April, 1872.

In my evidence to the court I stated it as my opinion, that the woman was not feigning, but was the subject of some mesmeric influence of her husband, exerted, though quite unconsciously, on his part, but which rendered it quite impossible that she could live with him; and the court thereupon granted her maintenance.

DIGITALIS AS A CARDIAC STIMULANT.

By Surgeon W. COLLIS, *of the Buffs*.

PRIVATE H. F.——, aged 33, full service 12 years, in India 6 years, admitted on the 13th August, 1872, into "The Buffs'" Hospital, suffering from remittent fever. The patient was a very anæmic and debilitated man—a bad subject for fever.

On the 17th the disease assumed an asthenic type, and great prostration set in; endermic injections of quinine were used, stimulants combined with most nutritious food were freely given, but had no effect. On the evening of the 17th the man was rapidly sinking; the pulse could not be counted, and with difficulty felt. The heart's action was most indistinct, diastolic sound could not be distinguished from systolic; surface of body cold and moist: temperature in axilla 101°; patient perfectly unconscious; in fact all the symptoms of approaching death were present.

Some days before I happened to have had a conversation with Assistant Surgeon Hall, R.A., on the action of digitalis, he having read Dr. Fothergill's book on that drug. I asked Assistant Surgeon Hall to see the case with me, and I determined to try digitalis as a *dernier ressort*. The following will show the result:—

The patient was in the state I have described when the first dose of tr. digitalis was given at half-past 5 o'clock p. m.

August 17th, 6 p.m.—Volume of pulse slightly fuller; temperature in axilla 102·8°. 7 p.m.—Tr. digitalis 3i. 7-30 p.m.—Pulse 108, fuller; temperature 102·8°. 8 p.m.—Pulse 100, increasing in volume; temperature 103°. 9 p.m.—Pulse 100; temperature 103·8°. 9-30 p.m.—Tr. digitalis 3i. 10-30 p.m.—Pulse 90, most decidedly stronger; heart's action much more distinct; temperature 102·4°. 11 p.m.—Pulse 90; temperature 102°. 11-30 p.m.—Pulse 84; temperature 102°. 12 p.m., midnight.—Pulse 84; temperature 102°.

18th, 12-30 a.m.—Pulse 88; temperature 101°. 1-30 a.m.—Pulse 88; temperature 101°. 2 a.m.—Tr. digitalis 3i. 2-30 a.m.—Pulse 86; temperature 101°. 3 a.m.—Pulse 86; temperature 104°. 3-30 a.m.—Pulse 84; temperature 100·6°. 4 a.m.—Pulse 84, with a much fuller and more decided beat; heart's sounds most distinct; temperature 100·6°. 4-30 a.m.—Pulse 84; temperature 100·3°. 5 a.m.—Tr. digitalis 3i. 5-30 a.m.—Pulse 86; temperature 100°. 6 a.m.—Pulse 84; temperature 100·4°.

So far I have no doubt that the patient's life has been saved by the administration of digitalis. The heart's action is now good. The ventricles contract with regularity and strength. Patient perfectly conscious, and can answer questions put to him.

8 a.m.—Tr. digitalis 3i. Pulse 84; temperature 100°. 9 a.m.—Pulse 90; temperature 100·6°. 10 a.m.—Tr. digitalis 3i. Pulse 84; temperature 100°. 11 a.m.—Pulse 86; temperature 101°. 12 noon.—Tr. digitalis 3i. Pulse 86; temperature 100·8°. 2 p.m.—Pulse 86; temperature 100·4°. 3 p.m.—Pulse 86; temperature 100·8°. 4 p.m.—Pulse 86; temperature 101°.

From this time the digitalis was discontinued, circulation improving, and patient decidedly better. The man suffered from ulcerated fauces; so much so, that it was with difficulty he could take food; indeed, all nourishment was given by enemata.

20th.—Pulse 84; temperature 99°. Patient improved; throat better; can now take food.

21st.—Temperature at 7 a.m. 106°. Passed a very bad night, complains of severe pain in right parotid gland.

Vespere, 9-30 p.m.—Pulse 100; temperature 104·8°. 10·45 p.m.—Patient became very restless; pain on the increase in parotid gland; an amount of swelling exists, and matter is evidently forming. 11-45 p.m.—Pulse 106; temperature 103°. 12 midnight.—Pulse 110; temperature 103·6°. 12 30 a.m.—Pulse 110; temperature 103·6°. 1 a.m.—Pulse 110; temperature 103°. 1-30 a.m.—Pulse 100; temperature 102 6°. 2 a.m.—Pulse 100; temperature 103°. 2-30 a.m.—Pulse 100; temperature 102·8°. 3 a.m.—Pulse 100; temperature 103·2°. 4 a.m.—Pulse 96; temperature 103°. 5 a.m.—Pulse 99; temperature 102·8°. 5-30 a.m.—Pulse 98; temperature 102·6°. 6 a.m.—Pulse 98; temperature 102·6°.

22nd.—The swelling in parotid gland still increasing.

Vespere, 4 a.m.—Pulse 104; temperature 103·8°.

23rd, 6 a.m.—Pulse 114; temperature 103·6°. Swelling much largera, nd skin tense and shining; introduced a small exploring needle and detected deep-seated matter; free incisions were made, and a small quantity of pus escaped.

24th.—Pulse 110; temperature 104·2°; subsultus, involuntary action of sphincters; pulse rapidly getting weaker.

Vespere.—Temperature at noon 105°; pulse 112. 4 p.m.—Temperature 106°; pulse could not be counted. At 5-45 p.m. patient's pulse could not be felt. Temperature 106·3°. Died at 6 o'clock.

AUTOPSY (12 *hours after death*).—Body very emaciated. Brain much congested, and vessels full of blood; effusion at base of brain; weight 3lb. 4oz. Ventricles contained four drachms of fluid; choroid plexus congested.

Thorax.—Old adhesions between pleura pulmonalis and costalis. Lungs congested, and gorged with frothy blood; weight of left lung 1lb 10 oz.; right lung, 1lb 9 oz. Heart normal; weight 10 oz.; valves healthy.

Abdomen.—Liver congested, weight 4lb.; no re-action with iodine. Spleen congested—soft and enlarged; weight 1lb 4oz. Kidneys normal. Intestines—illeum congested; ulceration of Peyer's patches, some with ulcerated slough detached; mesenteric glands enlarged, and soft. Mouth and fauces also extensively ulcerated. No entozoa detected in any organ or intestines.

REMARKS.—There is but little doubt that the digitalis saved the patient's life for the time; and if enteric fever and other complications had not occurred, the man would in all probability have recovered. There is no doubt that the drug acted as a cardiac stimulant and tonic. Assistant Surgeon Hall and myself have latterly been making experiments on large bull frogs, averaging 1lb to 1½lb in weight, to ascertain the action of digitalis and other drugs on the heart. Our observations confirm those of Dr. Fothergill about digitalis. Soon after the medicine is absorbed, the ventricle begins to contract very forcibly, becoming almost white during the contraction; and at death the systolic contraction in both auricles and ventricle is maintained. On opening the heart, no blood was seen in any of the cavities. Since the above, I have given digitalis to patients recovering from continued fever, and in whom the heart's action was very weak. I found that ten