

It is almost needless to say that his attacks of diarrhoea ceased, and his health otherwise improved, immediately on removal of what I believe to have been the undoubted cause of his disorder.

I would ask that this case, which was clearly due to ferments with evolutions of fungous organisms, if one is to accept the doctrine of the Professor named, be compared with an equally representative one already described, due to the oxidizing decay of vegetable matter, grasses, &c., which excited periodic fevers. Both, I believe, were traced to their proper sources, and the complaints ceased with the removal of the causes.

This ferment case represented a state of things met with more frequently among coolies and natives, than among Europeans in Assam. But it represents, also, a state of things met with, to a lamentable extent, in England and elsewhere.

When on a visit in Nottinghamshire and Wales about a year ago, I noticed that many of the smaller farmers and villagers stored their manure heaps and refuses close to their dwellings, in some cases just under the windows of their houses—quite unconscious, apparently, of the odours issuing from them, but which, to me, seemed strong and repulsive even afar off.

I was not at all surprised, on enquiry, to learn that typhus or typhoid fevers were prevalent at these places, besides other ailments—all, I believe, ascribable to these manure heaps and their cess-pools.

It has often appeared to me that there is amongst many, if not most people, an aversion to admit ill effects from noxious matters in a state of decay or ferments lying in close proximity to their dwellings, and to which they have become habituated, at all events as far as sight is concerned; and any remarks made, suggesting the contrary, are at times apt to be resented as savouring of impertinence; while sometimes, on the other hand, he who ascribes remote causes for such things, pleases the complacency of individuals, and thus obtains their applause. As an instance of this, I remember some years ago hearing a lecture delivered in a town in Yorkshire, on some matters relating to sanitation, in which the lecturer—showing, perhaps, patriotism at least—said that it was all nonsense people thinking that the fevers which the inhabitants of the Fens of Lincolnshire and other parts of the east coast of England suffered from were due to the ill-drained condition of those places.

The real cause of the fevers, the lecturer maintained, was the malaria issuing from that low swampy land opposite, on the other side of the sea, called Holland. In like manner, but not to the like degree, one hears that the fevers which the residents in Rome are sometimes attacked with, are due to the malarious condition of the Pontine marshes. It struck me when on a visit to the great city a few months ago, that these marshes are saddled with much more blame than their due. While I consider Rome the most interesting city I have ever visited, I also think it the most disgusting one as far as sanitation is concerned. Stercoraceous or urinous odours assail one nearly at every turn.

The sacred precincts of St. Peter's itself are not free from them. Viewing these, one naturally asks, are the designers and builders of the *cloaca maxima* with its grand systems, destined to be much longer without fitting and efficient successors? It occurred to me that with a more thorough municipal drainage and sanitation, Rome might be as healthy as any city in Italy, the Pontine marshes notwithstanding.

Even Calcutta, I remember reading in a local paper some time ago, used to blame the salt lake which lies to the east of it, for its state of unhealthiness, more than its own interstitial odours and filth. Possibly many are of this opinion still.

(To be continued.)

#### THE PHYSIOLOGICAL AND THERAPEUTICAL EFFECTS OF CARBOLIC ACID ADMINISTERED INTERNALLY.

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

(Continued from page 206.)

On the 20th May, twenty minims of the acid were given three times to both dogs, and both were affected much alike, there being an increase in the agitation, &c.

21st May.—Yesterday both dogs vomited several times, and appeared restless, the symptoms of one dose not having entirely worn off, before it was time to give another; and the big dog refused his food. The same doses were given three times.

22nd May.—Both dogs are frothing at the mouth, and seem troubled with nausea, and the big dog looks thin and hide bound. Immediately after each dose, both dogs trembled greatly, and lay down, and got up several times.

23rd May.—Increased the dose to twenty-five minims, three times in the 24 hours. The symptoms were much the same as before, only the dogs appeared to drink more water, and shewed less relish for their food, eating slowly, and as if their mouths were sore, but on examining them no ulceration could be seen.

24th May.—Thirty minims were given, three times during the day; this caused a great increase in the trembling and agitation; and their gait became quite staggering, and the frothing at the mouth increased.

25th May.—Thirty-five minims were administered three times, which caused a further aggravation of the symptoms.

26th May.—One dose only of 40 minims was given to each dog. In three minutes the big dog fell down, convulsed; the little one also staggered and fell, but was able to get up again, but not to stand steadily; the eyes of both became dull and heavy, and the pupils somewhat dilated; breathing increased, and in the little dog stertorous. In fifteen minutes these symptoms began to diminish, and in twenty minutes the little dog could rise on his fore-paws, but could not stand; and the big dog began to raise his head. In 25 minutes the big dog was able to rise on his fore-paws, and the little one to sit on his haunches. In 35 minutes both dogs were standing up, and now the big dog, although most affected by the medicine, appeared the stronger of the two. In 44 minutes, the big dog drank some water, and in 52 minutes passed his urine copiously. In one hour's time both dogs appeared perfectly recovered.

27th May.—One dose of 45 minims was given at 7-15 a.m. to both dogs. In two minutes spasms had commenced, and in another thirty seconds the big dog fell down, convulsed, but it was five minutes before the little dog fell, and then he was able to rise again. In both the eyes became dull, and pupils dilated.

In fifteen minutes the big dog was breathing stertorously, and all the muscles of the neck seemed spasmodically contracted; sprinkling a little cold water on him checked the stertor for a short time. In one hour and forty minutes the big dog recovered. The little dog was similarly affected, but in a less degree, and was all right in one hour's time.

During the day, they both vomited several times, and were troubled with a short husky cough. They were allowed to run about for a short time, but appeared very weak, and did not take their food properly.

28th May.—No medicine given.

29th May.—Fifty minims were given at 8-34 a.m. to both dogs. In one and a half minute, the big dog fell down, convulsed, and in three minutes, *i. e.*, at 8-37 a.m., a mixture consisting of the white of one egg, half an ounce of milk and

one drachm of chalk, was given to him. At the time, he was convulsed, eyes heavy, bloodshot and pupils dilated. No antidote was given to the little dog, and he appeared but slightly affected with his dose; he was restless, and kept turning round, and once or twice stumbled over the peg he was tied to, but was able to rise again. At 8-48 a.m., the big dog's breathing was stertorous, and he lay, to all appearance, insensible, as pinching him did not seem to be felt; the stertor increased up to 9-2 a.m., and he had strong spasmodic twitching of the muscles until 9-50 a.m., when he began to recover, and to raise his head; at 10 o'clock he got up, but fell down again several times, and was not thoroughly over the effects of the medicine for two hours.

This morning I secured a third dog, of about the same size as the others, and to him gave one drachm of the acid at once. In one minute he staggered and fell; in two minutes I gave him a mixture consisting of the white of one egg, half an ounce of milk, and half a drachm of tincture of opium. He was strongly convulsed, eyes bloodshot, pupils dilated, and frothing at the mouth. At 8-55 a.m., (the dose having been given at 8-39 a.m.), he was breathing stertorously; but sprinkling cold water on him made him raise his head. At 8-59 a.m. he attempted to rise, but could not; at 9-7 a.m. he got up, but could not remain standing; but by 9-22 a.m., was pretty firm on his legs, and by 9-50 a.m., or in one hour and eleven minutes, appeared quite recovered. In about fifteen minutes more he drunk some water, lay down, and went off to sleep. He remained dull and heavy all day, yet took a fair share of food. At 7 p.m. he began to vomit, and was purged four times; stools feculent and quite black. Died at 11 p.m.

30th May.—A *post-mortem* was made at 8-30 a.m. The lungs were dark, and felt hard, heavy, and solidified; the left one more so than the right. The right auricle of the heart was distended with coagulated blood, and the right ventricle also contained a clot; but the left heart was empty. Liver dark coloured and hard to the feel. Gall bladder distended with dark greenish bile. The stomach contained a little dark fluid, and at one small spot had a red inflamed appearance, but the rest of its surface was pale. The large gut was marked by red points, about size of pin heads, along its whole course; and this appearance was also seen in the smaller intestines, but in larger spots. The rectum contained black, rosy fæces, and was still more inflamed. The pelvis of the kidneys also presented slight inflammation. The bladder was full of deep red urine, which smelt strongly of the acid, but no traces of inflammation were noticed.

The other two dogs appear all right this morning, beyond that the big one barks rather hastily, and does not eat so fast as the little one, and the frothing at the mouth is less in both. No experiment tried with these to-day.

31st May.—At 7-31 a.m., 55 minims of the acid was beaten up well with the white of one egg, and given to the little dog, (the mixture resembled thin curds.) In one minute, he began to tremble, lay down and got up several times, and scratched the ground, and was troubled with a short husky cough and rattling noise in his throat. In about three minutes the pupils of his eyes were dilated, and in ten minutes the eyes were bloodshot, but not so much so as on the 29th, with a smaller dose. The agitation lasted for half an hour and then decreased, and by 8-25 a.m. he appeared all right, drank some water, and composed himself to sleep.

At 7-32 a.m., 55 minims of the acid intimately beaten up with half an ounce of castor oil, was given to the big dog, but did not appear to have any effect on him; after taking the dose he lay down. In seven minutes he was roused up, when some twitching of the muscles of his hind quarters was noticed; he

again lay down, and at 8-25 a.m. was again roused up, when he lapped a little water, but the medicine thus given appeared to have very little effect.

1st June.—No experiment was made.

2nd June.—At 7-17 a.m., one drachm of acid well mixed with half an ounce of castor oil, was given to the little dog. In two minutes he was a good deal agitated, and stood trembling, panting, and coughing, as if his throat was affected; this continued until 8-15, when it wore off, and by 8-30 a.m. he appeared recovered. At 7-19 a similar quantity of the acid, with half an ounce of tillee oil, was given to the big dog. In one minute he lay down, with a hoarse rattling in his throat during expiration, but the spasms were slight. At 7-27 a.m. he got up, but trembled a good deal, and walked with a very weak, staggering gait. These symptoms gradually wore off, and by 8-45 a.m. he seemed quite comfortable again.

3rd June.—At 7-5 a.m., one drachm of the acid, in one ounce of water, was given to the big dog. In thirty seconds he fell down. In another half minute, one drachm of tr. valerian ammoniæ was given, in half an ounce of water; the dog at the time was strongly convulsed, pupils dilated, and breathing stertorous; at 7-8 he was frothing at the mouth; at 7-15, he was lying to all appearance insensible, and did not feel pinching him, no matter how the skin was twisted, but all the muscles shewed spasmodic twitchings, and the eyes were bloodshot. At 7-35 a little cold water thrown on him roused him slightly; at 7-55 a.m. he raised his head, and the stertor of his breathing stopped. At 8-5 he got up, but fell again; by 8-22 he was pretty strong on his feet, and at 8-30 drank copiously of water. At 8-50 his bowels were moved, motions costive, and by 9 o'clock he was all right.

At 7-9 a.m., one drachm of the acid was given to the little dog, and immediately after a mixture of half a drachm of chloroform, half a drachm of tincture of hyoseyamus, with half an ounce of water. In one minute he lay down, then got up, but fell over again. At 7-15 he appeared to have lost all feeling, and severe pinching did not affect him; he was not much convulsed, but frothed at the mouth a good deal. At 7-30 a.m. he was still insensible to pain, but by 7-37 raised his head, and at 7-50 attempted to rise, but could not. At 8-1 he got up, walked a few paces and fell, and lay there until 8-8, when he got up. At 8-15 his bowels were moved, motion costive, and he stood panting, and lapped a little water, and again drank copiously at 8-48 a.m., and by 9 o'clock seemed quite himself again.

In this experiment the spasms were very slight in the little dog; he appeared more to be narcotized by the chloroform and hyoseyamus, than affected by the acid; whereas the tr. valerian, I think, had no effect at all.

Reviewing these experiments, I am led to believe that a constant administration of the acid begets a tolerance of it; and that this tolerance is greater in some than in others, as throughout these trials the little dog has been less affected than the big one, although taking exactly the same doses, and has maintained his flesh better.

Given with oil, when well mixed together, its action is greatly modified, but when given alone, its effects are so rapid, as to give very little hope of any antidote being of use. The white of egg and milk did not appear to influence its action in any material degree.

The *post-mortem* appearance of dog No. 3 indicates it to be an acro-narcotic; and, it is also evident that it passes off from the system, largely, by the kidneys.

Each of these two dogs has now taken 14½ drachms of the acid, and neither appears much the worse for it; the only constant remaining symptom being a short husky cough, with a slowness in eating.

Further experiments will be made to try and find an antidote, and to record *post-mortem* appearances.

On the 18th May, Mussumat Ameerjan, aged 25 years, was admitted into the dispensary. Stated she had been suffering from dysentery for the past eight days; has constant pain in her abdomen, and straining at stool. A dose of castor oil was given, and compound chalk mixture, but up to the 23rd she was no better; she was then ordered 2 minims of carboic acid, three times a day.

24th May.—Has had three stools, which were more fœculent, with less pain and straining. Acid increased to 3 minims, three times a day.

25th.—Yesterday she had three stools, with only a trace of mucus in them, but towards evening she got fever. The acid was ordered to be continued, with 10 minims of tr. opii. with each dose.

26th.—She had only two stools, which were free from mucus, and her pain has gone; the fever did not return.

27th.—One stool this morning, but again a trace of mucus, and she complains of pain after food. To continue the acid with only 5 minims of tr. opii.

28th.—Had 4 stools, mucus increased in quantity, and again complains of straining. To continue the medicine.

29th May.—Much the same. Omit the acid mixture. To take dysentery pills—of ipecacuanha, opium and gentian—three times a day.

2nd June.—She is worse, and complains of severe straining. Omit pills, and repeat acid—minim iij and tr. opii 5 minims—three times a day.

3rd June.—Had only two, fœculent stools; pain and straining less, and but a trace of mucus in the motions.

Still under treatment.

N. B.—On the 29th she complained of her teeth being shaky, and set on edge, and that she could not eat properly; and without doubt the dogs have been similarly affected, which has prevented their taking their food with relish.

### IMPREGNATION WITHOUT RUPTURE OF HYMEN.

By C. R. FRANCIS, M.B.,

Deputy Inspector-General of Hospitals.

A FEW years ago, when officiating as civil surgeon in one of the stations of the North-West-Provinces, I was asked to prescribe for a lady whose prevailing and prominent symptom was *sickness*. It was unceasing. Exaggerated in the morning, it continued throughout the day. At night only, when my patient slept, was relief experienced. She had been married a few months. I pronounced her to be pregnant. "I can't believe it," said the husband. "Impossible," said the wife. "Why?" I asked, "can any thing be more likely?" (The lady was 28 years of age, well nourished and in good condition; and the husband was young and vigorous). I founded my diagnosis upon the condition of the nipple and the circle surrounding it, in connection, of course, with other circumstances. Sufficient time had not elapsed to allow of my ascertaining any thing satisfactory from any kind of *examination*. The couple were quite satisfied that they were right, and that I was wrong. A *dhaee* had told the lady so. I was but a youngster in those days; and the snow had not appeared upon the top of the mountains. It was, therefore, a delicate subject for me to talk about, so I took "Gooch on some of the diseases peculiar to women" out of my library and, marking down the passage where the dissecting room scene is described in which John Hunter declared that a fetus would be found in the uterus of an apparent virgin, although an inquisitive student had announced the existence of a hymen,—(Hunter had based his diagnosis upon the state of the

breasts) sent the book to the husband, and asked him if that was not the condition under which he believed his wife to have remained unimpregnated, *viz.*, the existence of an unruptured hymen. His reply was in the affirmative. Shortly afterwards, upon my recommendation, the lady was sent for change of air to a neighbouring station; and eventually she went to the hills, where, at the end of the ninth month, she was duly confined. I believe that the hymen remained unruptured to the last, as the medical officer, who attended her, wrote to me to say that there was some kind of membranous impediment to the birth, but which finally gave way as the head advanced. Such cases are not common, and should, therefore, be recorded when they occur.

DINAPORE, September 15th, 1871.

### REPORT ON THE PREVAILING DISEASES IN THE MADHOPORE DISTRICT.

By P. A. MINAS, G.M.C.B., *Hony. Asst. Surgeon,*

*Late in Civil Medical charge of Madhopore.*

MADHOPORE is situated in lat. 32°-21'-36", 72 miles from Umritsur, 27 miles from Goordaspore, and 52 miles from the Dalhousie hills. This station is the head-quarters of the first division Barea Doob Canal, and is on the left bank of the river Ravee.

I shall first begin with the commonest of all diseases, *viz.*

#### BRONCHOCELE.

It is curious to observe that this the most prevalent disease in this district was not recorded in the hospital returns both of the in- and out-patients treated ere 1859. Afterwards, it was noticed and treated with ungt. iodin. or tinct. iodin. paint externally, and pot. iodid. internally, with very little success.

After the expiration of another short period, this ailment received due attention, and was treated with the external application of ungt. hydrarg. iodid. rubri. The patients, enjoying a radical cure, began to flock in. There is no record extant of the thyroid gland being affected either in the centre only or sides. During my short observation, I find that the right side is more prone to be attacked than the left, that it is more seen amongst women than men, but it is *now* impossible to state the exact proportion.

From imperfect records, I am, also unable to state at present the connection between it and the uterine function, and whether the glands become enlarged during the menstrual period, or this disease makes any progress during the puerperal state. The peculiar form of *exophthalmic goitre* is also occasionally seen.

The following is the only case of *cystic bronchocele* which I have seen, and it extended from the margin of the lower maxilla to the clavicle on the right side, was of a globular form, with a broad base, thus pressing on the trachea and œsophagus, thereby causing an impediment to expiration and deglutition. After an examination with the exploring needle, I inserted a small trocar, and evacuated 8 ounces of serous liquid, unlike that of hydrocele; then injected ʒi of tinct. iodine, internally. I ordered pot. iodid. gr. v with ʒi infus. chiretta, three times a day. After a week, the sac was again filled up: after its evacuation, tinct. ferri perchlorid. ʒi was injected; after a week, there was a hard swelling of the size of a small orange, without any fluctuation. It was painted twice a day with tinct. iodin. comp., and the patient derived great benefit therefrom.

I have seen a great number of *cretins* connected with *goitre*, with the distinguishing symptoms of "diminutive stature,