be found, and that was in the pericardium. After saying that no history of syphilis or alcoholism had been obtained, and that the changes super-added to the lymphadenoma did not correspond with either accurately, he concludes that "without doubt some other change, such as that which may result from syphilis and alcoholism, must be added to lymphadenoma to explain these pathological changes satisfactorily."

The man had been troubled with large glands for four years, probably in that time many doctors had diagnosed the case as one of Hodgkin's disease, and all of them would have prescribed arsenic. It seems likely, therefore, that this is a description of the changes wrought by constant doses of arsenic, an arsenical cirrhosis of the liver, spleen, and lungs.

Professor Osler, in his *Textbook of Medicine*, describing Hodgkin's disease, says:

In connexion with the affection of the abdominal glands there may be bronzing of the skin....Bronzing may occur, and occasionally a most intense and troublesome prurigo....Palpitation is common....Pleural effusions are not uncommon....Often there are dropsical symptoms.

Dr. Murray, in Clifford Allbutt's *System of Medicine*, says:

The solar plexus may be implicated with bronzing of the skin as in Sir W. Jenner's case, in which Sir W. Gowers found the solar plexus was involved, though the suprarenal capsules were unaffected....Effusion into the pleural cavity often takes place, either as a part of a general anasarca or as a result of pressure on the azygos or bronchial veins....Diarrhoea may take part in bringing about the fatal termination.

Is it not probable that most of these are symptoms of arsenical poisoning? Dr. Reynolds in his papers on the effects of arsenic says:

Many of the cases are just like Addison's disease....Much itching of the skin....Sometimes there is very marked general oedema....Diarrhoea has been noted in the acute cases.

In other diseases usually treated with arsenic one may also meet with possible signs of poisoning. A few months ago I was told of a case of pernicious anaemia where sudden general oedema supervened, though the blood count had markedly improved under arsenic; and may not the "pigmentation of the skin," "oedema," "ascites," "sensory disturbances" mentioned in accounts of pernicious anaemia and leucocythaemia, and the cirrhosis of the liver in Banti's disease, be due to arsenic, and even the vomiting and diarrhoea, which often are the cause of death?

CASE OF SEVERE BELLADONNA POISONING.

By GEORGE R. LIVINGSTONE, M.B.,
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THE notes of the following case of severe poisoning through the application of a belladonna plaster are of some interest as an illustration of the tendency at the present day to self-medication, very largely due to the knowledge derived from "newspaper medicine" as described in the *BRITISH MEDICAL JOURNAL* of January 24th, 1903, p. 211. There seems to be a twofold danger in this growing tendency on the part of the public to play the amateur physician. There is the danger from the wrong use of a drug, and there is danger through symptoms being masked and the correct diagnosis rendered more difficult.

On December 24th, 1902, I had occasion to see a patient who was suffering from influenza. His attack lasted a few days, and he appeared to be making a fairly good recovery. On January 1st, 1903, he showed symptoms of cardiac trouble. In addition to medicinal treatment complete rest was enjoined. In a few days the action of the heart appeared to be normal, at all events while the patient remained recumbent. As it seemed impossible for him to abstain from business, and as his business books were being brought over to his house, he went, on my recommendation, to the country on January 5th. It seems that after five days he felt so well, and business matters seemed so urgent, that he returned home, feeling quite "fit," on Saturday, January 10th.

By Monday, the 12th, he was beginning to feel out of sorts, and was suffering from pain in the back, a "fluttering" sensation over the region of his heart, etc., and altogether at this time he felt very seedy, but, having disobeyed orders, he was afraid to consult his medical attendant. Upon the following evening I got an urgent message to go over to his house at once, as he had fainted. I saw him between 6 and 7 p.m. I found he was suffering from severe pain in the back and head; the pain in his back, however, was his chief complaint, and his wife told me that she had applied a belladonna plaster to it shortly before. He also complained of shortness of breath and of a sense of oppression over his chest. His pulse was very irregular in strength, and there were occa-

sional intermissions. He complained of some thirst, and on taking his temperature I found it was 101°. I prescribed for him, and, as his condition was undoubtedly critical, I said I would see him later in the evening. I had barely reached my house when a messenger came over asking me to return at once, as the patient had had a fit. I saw him shortly afterwards. From his wife's description of the fit, he had evidently had a severe rigor, and I found on taking his temperature that it was 102.6°. His chief complaint was still, however, of severe pain in the back. He showed a slight tendency to become delirious.

The possibility of belladonna poisoning did suggest itself to my mind at this stage, but I at once dismissed it, as the plaster had only been applied shortly before my first visit, which had been made about an hour previously, and I could not recall having seen even slight symptoms of poisoning after so short an application. Besides his most prominent symptoms had commenced before the belladonna plaster was applied. I did not therefore remove the plaster.

I saw the patient again about 11 p.m. His heart's action was exceeding feeble and irregular. His wife said he had been rambling a little, but he seemed sensible enough during my visit, and answered all my questions quite intelligently. His temperature was 102°. His respiration was very rapid, but I could detect nothing abnormal in the lungs. He had had several of what his wife called "fits," but these seemed to me, from her description, to have been rigors. I had obtained a specimen of his urine, and found it was normal. There was no dilatation of his pupils. I was sent for about midnight, when the patient was supposed to have had another "fit." I did not see him in this, but saw him shortly afterwards, when he was apparently completely paralysed in his right arm and leg, and his speech seemed to be affected. I gave some additional directions, and left feeling very anxious about the case, and resolved that if the patient survived till morning I would recommend another opinion.

About 2 a.m. I was asked to go over to see the patient, who was said to be much worse, and they thought dying. I went over, and found he was heavy and drowsy, and only roused with difficulty. On examining his eyes I found his pupils widely dilated. He had had some vomiting shortly before I was sent for, and his wife told me that he had been very delirious since my last visit.

There was now no doubt that whatever else he was suffering from, his acuter symptoms were due to severe belladonna poisoning, and arising from a belladonna plaster applied to his back only a few hours previously. To have rapid and severe poisoning by absorption through the skin after a comparatively short application seemed so unique that I could hardly believe it possible. I at once proceeded to remove the plaster. Upon its removal I found the skin reddened over the whole area covered by the plaster (an area of about 10 in. by 7 in.), and at one or two points actually blistered.

Here, then, was the explanation of the rapid absorption. But how had such a condition of the skin been brought about? On inquiry I found the plaster had been obtained from one of the best chemists, and we could not therefore blame the plaster. A little cross-examination brought out the whole story of the domestic practice of medicine by the wife. The pain had been "excruciating," and she applied a mustard poultice. After half an hour's application there was no relief. A turpentine fomentation suggested itself, and was applied; several were applied in quick succession; but the hoped-for relief to the patient did not come, and having heard from a servant that a liniment she had procured from a chemist for some obscure pain had "lifted" the pain at once, what remained in this bottle was freely applied and vigorously rubbed into the back of the unfortunate husband by this would-be healer of the sick. Still no relief. Dry mustard was then rubbed into the part. The pain remained practically the same, and the wife consulted a chemist, and was advised to apply a belladonna plaster. This was done. Later my services were called in because the pain continued very severe in spite of this energetic treatment. Whether this was the original pain or a new pain is a matter of doubt. The patient is now inclined to think that the original pain had really been removed, and that it had been replaced by a new pain. He did not appreciate the difference at the time; he only knew that his back was very painful.

After the removal of the plaster the patient rapidly lost the delirium, and the threatening coma passed off; and in an hour's time his condition had greatly improved. The irregular action of his heart, although no doubt aggravated by the

poisoning, was independent, and continued after all symptoms of belladonna poisoning had disappeared, but subsequently greatly improved under treatment.

CASE OF CHLORODYNE POISONING, WITH RECOVERY.

By K. R. DALAL, L.M. & S.,
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C. H., a Parsee lad, aged 18, was found one morning by his parents lying unconscious in his bed. They stated that he was perfectly well about 8 o'clock that morning, and when, about 10 o'clock, they happened to enter his room they found him breathing laboriously. They tried to awake him; failing in their effort they immediately sent for me.

On my arrival, I found the lad lying unconscious in his bed, drenched with profuse perspiration. The whole body was quite cold to the touch, the pulse imperceptible at the wrist, and the breathing embarrassed, the respirations being shallow and quick.

On auscultation, the heart sounds were found to be very feeble and fluttering, without any rhythm, and the heart's impulse was quite visible about an inch outside the left nipple line.

I immediately injected over the cardiac region a syringe of ether, followed soon by another injection of ether and tincture of digitalis $\text{m} \times$. After this the pulse could be felt at the wrist, and though at first very frequent and soft, in about twenty minutes it became full and slow. After the injections I had applied mustard plasters to the nape of the neck and over the cardiac region, and also fomentations of hot carum ajowan seeds were applied all over the body.

On auscultation over the lungs, air was heard to enter quite freely, no adventitious sounds being heard excepting the stertor. Respirations were shallow and about 45 per minute. Breathing in the beginning was of the snoring character, but after the injections it became quiet and regular. The pupils were equal, regular, in a state of moderate contraction, and they responded well to light. The tongue was dry, and appeared white and shrivelled as if some acid had been taken.

On inquiry being made of his parents, and on searching the room for an empty bottle or a drug, not the slightest clue could be obtained about the cause of this sudden unconscious condition, and, when the possibility of his having taken some poison was hinted, they persisted in stating that the boy was so sensible and of such good behaviour that he was incapable of doing any such act. Under these circumstances I provisionally diagnosed this case as one of syncope form of insolation, wherein I was strengthened by the statement that he had roamed about a good deal the day previously without any head protection.

About half an hour after the second injection, the pulse at the wrist became frequent and soon was scarcely perceptible. The heart sounds also became weak and irregular and fluttered so much that I feared it was about to come to a standstill. So I again injected ether and digitalis; soon after which, the pulse was felt at the wrist and it gradually became full and less frequent till it reached 110 per minute and was of good tension. On percussion the heart was found to be in a state of acute dilatation and the impulse was still visible outside the nipple line. The heart sounds were heard to be regular and stronger than before, but occasionally the contractions failed to produce the sounds in the intervals; though the pulse beat was regular.

Stertor also disappeared, the respirations became full and deep, the whole body was now warm to touch and the sweating also became less. The patient's general condition by this time was much improved, but I had kept on feeling the pulse, which soon began to increase in frequency till it reached 160 per minute. I had already ordered hot coffee to be prepared and when ready I injected about 8 oz. per rectum. The pulse soon resumed its former condition, becoming full, of fair tension and 100 per minute.

About twenty minutes later I again felt the pulse rising in frequency, and it soon began to flutter under my fingers. The heart sounds were like those in a case of tachycardia. I gave another rectal injection of coffee with 2 oz. of brandy, after which the pulse and the heart again became quiet. Soon after the patient became a little conscious; he would draw up his legs when hot fomentations were applied to his feet, and on trying to open his eyelids he would now resist the

act, whereas in the very beginning touching the cornea did not elicit any reflex. His name being shouted to his ears he would utter a little grunt, then turn on his side and would snore away as in deep sleep.

Now the patient, instead of gradually coming round, appeared to become more and more drowsy, as if he had taken some narcotic drug. I continued rectal injections of coffee, and tried to awake him by flapping him on his face with wet towels. About 2 p.m., four hours after my arrival, the patient threw his eyes wide open, and was able to recognize his parents. As he became quite conscious, I gave him a drachm of spt. ammon. arom. with little water to drink, a few minutes after which he vomited, the vomited matter consisting of bile, mucus, and little phlegm, but no odour of any drug could be detected in it. Now he was practically out of danger, talking rationally, and when asked denied having taken any drug or poison.

As I had to see another patient of mine, I sent for my friend Dr. J. R. Vakil, and, having explained to him all the particulars of the case, entrusted the patient to his care. Within an hour after my departure Dr. Vakil noticed the same fluttering condition of the pulse as described before. So he gave a hypodermic injection of brandy, and, as the patient was now conscious, gave him hot coffee by the mouth. Soon the pulse resumed its normal condition.

Meanwhile the patient's brother came home, and, opening his cupboard, found a bottle of chlorodyne unpacked. He brought it to Dr. Vakil, stating that he had left that bottle in his cupboard in a packed condition, and consequently his brother must have opened it, which the patient afterwards admitted to be true.

During his stay there Dr. Vakil had noticed that the heart's impulse was gradually receding, and when I arrived there—at about 5 o'clock—it had nearly resumed its normal position. He was now quite conscious but still drowsy, and his heart sounds being very feeble he was enjoined strictly to keep the recumbent position.

I directed them to keep him awake through that night, and a mixture containing digitalis, strychnine, caffeine, citrate, and spt. aetheris was prescribed. Since then no further trouble ensued excepting severe constipation. The chlorodyne bottle was a half-ounce phial, in which a drachm and a-half was still left, and so the patient must have taken two drachms and a-half of the fluid undiluted. On the label attached to the phial, besides the directions for use, the only statement given about its constituent parts was that it contained one-eighth of a grain of morphine in 30 minims. No proportion of hydrocyanic acid was given.

CASE OF ACUTE ALCOHOLIC POISONING IN A CHILD AGED 4 YEARS: TREATMENT BY SALINE INJECTION: RECOVERY.

By FREDERICK C. FORSTER,
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I was sent for hurriedly a few weeks ago to see a young child who "had been poisoned." On my arrival I was told that the child—a boy aged 4 years—had, three-quarters of an hour previously, swallowed 2 oz. of neat whisky. His father, who was a potman, had left the whisky—a measured quantity—in a small corked flask, and the child had removed the cork and drank the contents, telling his father, who came in a few minutes later, that he had "drank it all."

This was taken about 8 a.m. on an empty stomach. As the child soon "began to lose himself" I was sent for, and when I saw him at 8.45 a.m. he was lying insensible on a sofa; his temperature was 97°, his skin cold and clammy, the respirations shallow and sighing, and the pulse irregular and uncountable, his general condition being one of profound collapse. The corneal reflex was absent, the pupils being dilated and slightly reacting to light—a sign which is regarded by Luff as favourable. There was a strong odour of alcohol in his breath. There had been no vomiting.

After giving a hypodermic injection of strychnine sulphate ($\frac{3}{8}$ gr.), I proceeded to siphon out the stomach. The siphonage smelt strongly of alcohol, and the father volunteered the statement that the whisky was of "extra special strength." The child, though wrapped in blankets, with hot bottles round him, and cloths constantly rung out in hot water placed on the chest, was as deeply comatose as before, and