

at last fix its full value as an analgesic, and possibly justify the hope that it may take a valuable, if restricted, place in the group of those bodies which relieve suffering.

Aberdeen.

THE USE OF EXALGINE IN GRAVES' DISEASE, AND THE POISONOUS DOSE OF EXALGINE.

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THE poisonous dose of exalgine seems to vary greatly for different persons. A woman aged twenty-eight, of fair complexion, having typical Graves' disease, had, after some months, extreme exophthalmos and congestion of both conjunctivæ, with ulceration of the left cornea. Leeches, lotions, &c., gave very little relief. At length, the pain becoming severe, exalgine was tried, half a grain dissolved in five minims of spirit of wine, and a tablespoonful of water, every half hour for three times when pain was present. Next day not only was the patient free from pain, but the congestion had entirely disappeared; the eyes had changed from flaming red to perfectly white. During the next month, to satisfy myself and several critical observers as to the influence of exalgine, experiments were made; all the other drugs and appliances were tested in turn. The result was always the same: when exalgine was given, the eyes were white; when it was omitted, they became red and painful within a day, no matter what other drugs were given or lotions applied. As upon trial being made it seemed that the good effect was less marked when the whole dose of a grain and a half was given at one moment than when it was given in divided doses—half a grain every quarter of an hour for three times,—it was ordered to be taken regularly in this manner every four hours from a bottle kept for the occasional use of other persons as well as of herself. By a mistake of the transcriber of an old and damaged label, "gr. i. in 3i." became "gr. i. in 3i." This prescription being dispensed, the mixture contained eighty grains in ten ounces—of this there is no doubt; inquiries and testing by comparative evaporations established the fact. On a Thursday at 4.30 P.M. the patient had her ordinary dose of half a grain; a second dose at 4.45; at 5 the new mixture was begun. She merely remarked that this dose felt hot, but complained no further. This 4-grain dose was repeated at the following times: Thursday, 10 P.M., 10.15 P.M., and 10.30 P.M., or twelve grains in all within half an hour. Friday at 3 A.M. and 3.15 A.M. (she begged to be excused the third dose on account of pain and burning in the stomach); 7 A.M., 7.15 A.M., and the third dose after breakfast at 8.15 A.M.; at 1 P.M. one dose only; she declined the others on account of gastric pain; no other bad effect from forty grains of the drug given in twenty hours was observed. At 10 A.M. on Friday the complaint of pain led to the pulse being again counted, and it was found to be 144; it had never previously exceeded 136; its usual rate was between 100 and 120. Respiration rate 32 (above average). Temperature unaltered—98° to 99°. I saw the patient at 5 P.M. on this day (Friday), and suspected nothing until she complained of the pungent taste of the medicine and of the pain which it gave her. On the following day she felt much better in every way; the eyes were much less prominent, and the corneæ could now be covered by the eyelids. Pulse 120; respiration 26; morning temperature 98.4°; evening 99°.

Another woman having toothache, but otherwise healthy, had taken on Thursday, at 5.15 P.M., an ounce of the mixture—that is, eight grains of exalgine; at 5.30 a second ounce, and at 5.45 a third, or twenty-four grains in half an hour. This woman is about twenty-eight years of age, 5 ft. 5 in. in height, 9 st. in weight, has very fair hair and complexion, is very intelligent, of quiet, pleasant disposition, has a large head with relatively rather small face, and grey eyes. She states that after the second dose she felt dazed, but even after the third she was able to go out to call upon a friend half a mile away, though walking unsteadily and with difficulty, and fearing to speak lest she should say foolish things. On her return in an hour she felt giddy and stupid, but could do her work. On going to bed

at 10 o'clock she instantly fell asleep; awoke at 7 A.M. on Friday with dry mouth and frontal headache; no toothache; was better after breakfast, but the mouth still felt dry on Saturday evening.

Of the quality of the exalgine used there is no doubt. It has been found effective in cases of neuralgia, headache of (probably) cerebellar glioma, "lightning" pains of tabes (two cases), gouty arthritis, &c. The patient with Graves' disease resumed the use of the drug after a week's interval, and for three days she had three grains every four hours; then, for a week, four grains and a half every four hours. After an interval of four days she took three grains in one dose every four hours for ten days; afterwards, as she could not be kept longer under daily observation, the quantity was reduced to three grains three times a day. The corneal ulcer healed, and the pain and congestion were held in check by these doses, which were given in the hope of hastening the improvement of the original disease; they effected little if anything apparently in this way, but no discomfort of any kind was caused by them. Exalgine does not seem to be in any sense a "cumulative" drug. I have, however, heard of a case in which very alarming symptoms were produced by a single dose of five grains.

Leeds.

HERNIA INTO THE FORAMEN OF WINSLOW; LAPAROTOMY; RECOVERY.

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THERE are few rarer surgical maladies than hernia into the foramen of Winslow, and the few recorded cases have been verified by post-mortem examinations. This case, therefore, in its fortunate result is unique. The patient came under our observation on the seventh day of the obstruction, was watched closely for twenty days, during which intussusception was considered the most probable cause. On account of continued symptoms and progressive emaciation an operation was performed on Jan. 1st, at which a hernia into the foramen of Winslow was discovered, though reduction could not be effected. Forty-eight hours later a large enema was given for recurrent spasmodic pain, and from that time onwards all symptoms were relieved, and the tumour was found to have disappeared. Rapid and complete convalescence then set in. Such is the *résumé* of an interesting case which is worth relating in further detail.

R—, aged seventeen years, a Mohammedan Kashmiri, came to the Mission Hospital on Dec. 10th, complaining of acute pain and absolute constipation of seven days' standing. It had begun with an attack of vomiting. Before that he was quite well, and had not suffered from constipation. The cause of the attack was unknown. From that day (Friday) he had taken no solid food. A native doctor had administered purgative medicines, but only blood had passed. He had vomited once or twice, and brought up water only. The pain came on in fearful spasms. His appearance bore out the history. His face was pinched and sallow; eyes anxious-looking; he walked stooping, with abdominal muscles contracted; temperature normal; the pulse was small and thready. On examining the abdomen, it was seen to be flaccid and somewhat retracted, except in the lower part of the epigastric region, especially to the right of the middle line, where there was a distinct prominence. This was found to be of an irregular oval shape, about five inches long; part felt solid, and part was tympanitic. Dulness extended into the right hypochondriac region. A large enema (four pints) was given, and the patient was suspended by the heels and well shaken. By careful percussion it then appeared that there was no obstruction below the transverse colon. About an ounce of shreddy fæces came away with the fluid. From the general shape and position of the tumour and the symptoms, the tentative diagnosis of intussusception was adopted, and operation was postponed. The swelling became less tense after the enema had been returned. It could not be moved downwards or laterally, but could be pushed a little upwards.

Daily large enemata were given, and morphia to relieve the pain. The patient's usual attitude was sitting crouched

forwards, but on any sudden access of pain he would suddenly yell and fling himself down as if in a fit. He was kept on small quantities of soup and milk. Once or twice he vomited. On two or three occasions enemata brought away faecal lumps, which showed that obstruction was not absolute, blood was also passed in small quantities. The region to the right of the umbilicus was occasionally very tympanitic; by pressure with the hand a loud gurgling could be produced in the tumour, and this also caused spasmodic pain. On Dec. 15th the tumour appeared to be higher up than formerly, and to occupy the whole epigastric region. An elongated irregular sausage-shaped portion could sometimes be distinctly defined. Emaciation was rapidly setting in. Pain was somewhat less frequent. Matters continued thus for nearly three weeks. Operation seemed to offer little prospect of permanent relief. We could not willingly condemn the patient to an artificial anus. But as the friends of the patient wished to remove him unless active treatment was undertaken, we resolved to operate.

On Jan. 1st, assisted by Dr. E. F. Neve, a three-inch incision was made in the right semilunar line above the umbilicus but below the tumour, and a small portion of omentum drawn on one side. The distended ascending colon bulged into the wound on the right. On the left from below upwards were coils of small intestine, an empty portion of transverse colon, and then the stomach, empty, pushed forwards by the tumour, and somewhat twisted on itself. Following up the distended colon, it was found to pass through a ring lying to the right of the middle line behind the stomach. This ring admitted two fingers; its front boundary was formed of a rounded, smooth, but hard cord, passing from behind the stomach up towards the liver. The flaccid portion of transverse colon coming from the left side could be traced to the same opening. In separating the coils about this some slight adhesions were separated and flakes of lymph seen, and the surface of the bowel was much injected. Inside the ring the finger could detect more coils of bowel. Traction on either portion of bowel (the flaccid or the distended) gave a cord-like feeling, as if there were adhesions beyond the ring and none could be withdrawn. It seemed impossible to do more. Taxis could not be satisfactorily applied, for the stomach was much bulged forwards and the epigastric space narrow; and as Treves drily remarks, "even modern abdominal surgery has not proved that the hepatic artery, the portal vein, and the bile duct can be divided simultaneously with impunity." The constricting ring could not be incised. Traction had failed. We could only hope that the handling would not lead to acute obstruction, and proceed to close the wound.

On the second night after the operation the patient had a prolonged spasmodic pain, for which a large enema was given, and relief obtained. Twenty-four hours later, for the first time he passed a motion spontaneously. It was somewhat thinner. Next day he was sitting up in bed. On the seventh day after the operation the wound was dressed and stitches removed; there was some suppuration in connexion with them. On the tenth another enema was given on account of some uneasiness. The wound having healed, the abdomen was carefully examined. No trace of a tumour could be found. The epigastric region was soft and free from tenderness. Daily motions, somewhat thin, were passed. On the thirteenth the patient began to take his ordinary rice and meat diet, and was rapidly fattening. He remained quite free from any abnormal symptoms, walked about, ate well, and was discharged cured on the twenty-sixth day after the operation.

Remarks.—It would have been much better to have operated as soon as the patient had been two or three days under observation. The alleviation of the symptoms was but deceptive. Considering the extreme rarity of the condition actually present, and the comparative frequency of intussusception, the doubt about diagnosis is not to be wondered at. The chief diagnostic points appear to be (1) the position of the tumour in the epigastric region, higher than the normal position of the colon; (2) changes in its size, consistency, &c., depending on the amount of flatus and passage of faecal matter, &c.; (3) the colicky pains, due to the same causes. If the hernia were small, no tumour might be perceptible. Diagnosis would then be impossible. If, on the other hand, the hernia were strangulated, probably symptoms of general peritonitis would mask the local condition. It is in cases of chronic obstruction—such as that recorded

by Majoli (quoted by Treves¹), or the present case—that an accurate diagnosis might possibly be effected. The chief lesson is the great value of exploratory operations in cases of obstruction of the bowels. Although the *modus operandi* of the cure in this patient is not very clear, yet he undoubtedly owes his life to the operation performed.

Srinagar, Kashmir.

NOTE ON AFRICAN FEVER.

By T. HEAZLE PARKE, Hon. D.C.L., Hon. F.R.C.S.I.

MY earlier experiences with the Emin Pasha Relief Expedition impressed me very strongly with the value of the prophylactic use of quinine in warding off the infection of African malaria. The advice of Mr. Stanley, based upon his unique experiences of the hygienic conditions of the "Dark Continent," was most useful to me, as indeed it was at all stages of our journey. For a period of about ten days before entering the mouth of the Congo, each of the white officers of the expedition took about four grains of quinine twice a day; and the results were as satisfactory as could well have been anticipated, for although this precautionary measure was relaxed on commencing the ascent of the great river, we had but a couple of cases of slight intermittent fever till we reached Stanley Pool. This was a distance of 350 miles through one of the most unhealthy regions of Africa, and occupied our time from March 18th till April 22nd, 1887. No other body of white men had previously traversed the same space with the same degree of immunity. The Belgian officers who were stationed at Stanley Pool expressed the greatest surprise at our hygienic good fortune. They had lost several of their original party from the deadly attacks of the native fever before they had succeeded in reaching their station. They congratulated us warmly on escape, and agreed with me that our success must have been due to the efficiency of the prophylactic precaution which had been taken. Perhaps the sharpest febrile attack experienced during this part of the journey was my own, which commenced on April 18th and lasted for a week. It followed a "ducking" which I received in crossing a tributary of the Congo. I had tried to escape a wetting by riding my donkey through the water, but the animal slipped accidentally and completely submerged me. This was but the first of a long series of experiences, in which I found that every wetting in equatorial Africa—whether that of an accidental bath, like the one just referred to, or received in quietly wading a stream or swamp, or exposure to a drenching tropical shower—meant a subsequent attack of intermittent fever. Another lesson soon learnt, and for which I was still less prepared, was the fact that our donkeys after each corresponding drenching developed febrile symptoms exactly corresponding to those of their human fellow-travellers. After wading or swimming a stream of considerable size each of our poor quadrupeds became sick and dispirited, with drooping ears and "staring" coat, rapid arterial pulsation, and high internal temperature. These phenomena recurred with monotonous regularity. The white officers of the expedition fared similarly. Each immersion was followed by fever; so was each exposure to a chilling breeze, during or soon after active perspiration. So was direct and prolonged exposure to a very hot sun if the head and spine were not sufficiently protected. All such pronounced oscillations of the external temperature were followed by the phenomena of suspension of the functions of the heat-regulating mechanisms. A well-defined series of premonitory symptoms ushered in each attack, so that each of us soon learned by observation the indication of the "intermittent" which was commencing to affect his neighbour. These were not at all unlike the well-known phenomena of alcoholic intoxication. The individual became flushed and talkative, and impatient of contradiction; the eyes were prominent, staring, and glistening; the movement of the limbs was less restrained, so that the dress soon presented signs of more or less disarrangement, and the hair became dishevelled, and presented a "staring" appearance more or less comparable to that of sickening animals. The temperature was rapidly running up all this time, its ascent usually preceding, indeed, any observable symptoms of illness. With the eleva-

¹ THE LANCET, vol. ii. 1888, p. 701.