

Original Communications.

NOTES OF THREE CASES OF DIPHTHERITIC AND INFLAMMATORY CROUP AND ULCERATIVE SORE-THROAT, WITH REMARKS ON TREATMENT.

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H. D., *æt.* 22 months, European, was taken ill with fever and catarrh on the 19th July and passed a restless night. The child has been pale and delicate, yet had not lost much in flesh. On the 20th, the cough was observed to be harsh and metallic. He was kept in bed and placed on antimony and salines. 21st.—Temperature rose to 105°, cough was hard and croupy, breathing hurried, and left lung congested posteriorly; poultices were applied, and saline mixture continued. During the night, emetics of ipecacuan wine were given, which acted freely; the temperature fell to 103·6°, and cough became looser. A mixture containing 10 drops of ipecacuan wine was given every 2nd hour with citrate of potash mixture; nothing was observable in the fauces. Soup and milk were taken in fair quantity. 22nd.—Temperature 103·5°, crepitation audible on left side posteriorly; cough harsh and brassy. Tincture Veratri *mm. v* every 3 hours; this acted on stomach, causing vomiting; temperature fell to 101°. Veratrum continued 4 drops every 3 hours; cough loose; sleeping easily. 23rd.—Quinine two grains given with expectorant mixture, as it was thought that the high temperature had a malarial origin; slept, but was restless; cough troublesome; pulse 120, feeble; breathing small. Temperature did not fall below 102°; took good nourishment. 24th.—Had a good night; slept fairly well; took soup. Temperature 102°; slight bronchial rales in left lung; bowels freely moved. Quinine repeated with expectorants, and linseed poultices applied; child is pale and prostrate. Teaspoonfuls of brandy given every hour or two hours. The temperature again rose to 104°. Veratrum was repeated; he vomited, bringing up viscid mucus; during the night pallor of surface increased; temperature rose to 105°; breathing was deep and hurried, and pulse became weaker, rising to 135°. These symptoms continued, and the child died the following morning of exhaustion and prostration. There was no obstruction in the throat; the respirations became deeper, and vital powers gradually sank.

The orthodox and what is considered the rational treatment of croup is to bring the system under the influence of ipecacuan—first, by emetic doses so as to cause expulsion of membranous exudation or tenacious mucus, and subsequently to keep up nausea so as to promote free bronchial

secretion and so soften the cough and loosen the phlegm. Emesis and nausea are thus to be kept in view to remove and prevent the danger to suffocation which threatens. As aids to these indications, salines, diluents and diaphoretics are prescribed, while the strength is to be kept up with as much nourishment as the little patient can swallow. Local applications to the throat outside or inside in the way of antiseptics, caustics, astringents, and counter-irritants are also tried. Such treatment has been carefully followed, and I venture to add, that in the experience of many medical men practising in India, it has not answered its expectations. The above case is one of several that have fallen within my practice. The question arises,—Why this common failure? and can nothing further be done to prevent it? Croup in this country, at least in Lower Bengal, is not the inflammatory and acute disease which runs so rapid a course in England. It is more diphtheritic, and is undoubtedly a mere local manifestation of a deep-seated poisoning of the blood. The poisoning is of malarial and of pythogenic origin; town-houses in damp situations with thick vegetation around favor it; insidious bath-room offences in the way of dirty drains, fæcal exhalations and other products of their decomposition also cause it. Such exhalations find their way into bed-rooms, and generate, in the young sufferer, the blood poisoning, which shows itself in a low irregular fever, gradual failure of health and appetite, loss of color and activity, till at last the signal is given, which raises the alarm of parents and awakens them to a sense of the danger.

The plan of treatment above indicated is ordinarily followed. The patient is put to bed, often in the very room where he has imbibed the poison, doors are closed and draughts kept out, and the punkah often stopped; a curtain is placed over the bed away from the punkah lest the draught may be injurious; arrangements are made to let in steam to keep the breathing air warm and moist, though in the hot and damp climate of Bengal in the rains it is painfully damp and depressing. The little patient is thus confined in a corner of the room and sickened freely by emetics; he has soup, milk, and arrowroot poured down as much as he can take, often in quantities sufficient to cause indigestion and diarrhœa.

It often happens that these measures for the first day or two are followed by relief. The breathing is easier; the cough is less brassy; the voice is clearer, and hopes are raised that the danger has passed, and that convalescence is in prospect; but with the continuance of the treatment or even variations in medicines, and although the most careful nursing and feeding are sedulously attended to, yet it is found that the child does not really improve.

The temperature still keeps high above 100° or 102°; the pulse is quick; strength does not come; the ringing cough comes and goes; and the bronchial tubes give indications of extending mischief; the breathing is hurried; the child moaning in his sleep, looks very pale and gets paler and paler every day; his strength goes down in spite of wine, soup, and every effort made to keep it up. Exhaustion sets in; the suffocative dyspnoea increases, and the patient dies notwithstanding the best directed efforts made to save him.

Looking at the disease as a poisoned condition of the blood, I think it is a mistake to keep the patient in too confined a room in order to avoid the danger of his catching cold or of extension of the disease to the lungs. An ordinary catarrh is caught by exposure, and is, if I may use the term, a healthy cold compared with the sore-throat and croupy cough which signalize diphtheria. In the one case confinement for 24 hours, diaphoresis and mild treatment suffice to remove the ailment; but in the case of diphtheria, the child is kept for days in a room, imperfectly ventilated under curtains, often in the very room of the house where he contracted the disease. While the physician does his best to remove local danger from the throat and gives medicines to subdue and prevent fever, his patient is all the while breathing a contaminated air. The blood is already poisoned; the local manifestation of the disease is considered the great danger; but the exhaustion of the system that undoubtedly accompanies and follows is the greater danger; the throat may be cleared by emetics, but if the poisoned blood continue, the croupy cough will not cease. Are we not therefore likely to make a mistake in guarding against danger to the lungs and throat by avoiding exposure and keeping the patient in too close a room and thus cutting off the fresh air and light so necessary to blood purification? and are we not likely further to err in keeping up nausea too much and too long by frequent doses of ipecacuan, and thus reducing the patient's strength and impairing his digestion? These are questions that arise from the too frequent failure of the ordinarily prescribed methods of treatment. The best success that I have met with in the treatment of such cases has been the removal of the patient to a healthier atmosphere. It is remarkable how a child suffering from this disease brightens up during the drive; the exposure which the parents feared, instead of doing harm, did good, sound sleep often follows and very little medicine is needed; appetite returns, and with ordinary care recovery may be hoped for. Chlorate of potash, quinine, dilute hydrochloric acid and bark appear to be the more likely remedies under such circumstances. I therefore urge the early removal of the patient to a healthier

quarter, and, if possible, to an upper room, to a more elevated and less malarial spot, where with plenty of fresh air and good nursing he has much more chance of recovery than if left for days in a stuffy, and dark and poisoned atmosphere.

In connection with this case I give two others which subsequently occurred in children; one of inflammatory croup, the other of ordinary ulcerative sore-throat; in both these there was no blood poisoning; all three are interesting as illustrative of the forms of throat mischief met with in Indian practice:

Inflammatory croup cut short in the early stage.

10th. September 1885.—E. W., female, aged 20 months, European, a florid and healthy child, enjoyed good health all along, got a cold yesterday, and was a little hoarse; was imprudently kept out this evening till 8 P.M.; was hot and out of sorts when put to bed. Slept till one o'clock, and woke its nurse by a loud croupy cough which alarmed the household. Ipecac. and antimonial wine were given, but the child was only made partially sick. I arrived at 2 A.M., and administered ipecacuan wine in *zii* doses every 15 minutes; after the third dose free emesis occurred. The cough had a metallic ring and voice was hoarse, but at times it was distinct. Temperature 101°, skin warm and moist, head warm, pulse 130. Ipecacuan wine was repeated and acted again. The child was inclined to sleep. Vin. Ipecac. *mm. x*, Vin. Antimon. *mm. x*, Citrate of Potass *grs. iii*, Potass. Nitras *gr. i*, Aqua *zii* were prescribed every 2 hours, and *ziv* of castor oil ordered to be given afterwards. The child slept well till 8 A.M. when it got the oil. There was still the hoarse cough, though not so hard. Child's face was flushed.

The child was kept in the end of a separate room, and the punkah kept going as the weather was extremely sultry. Milk and water and chicken broth were given; temperature 99.8°. Bowels acted freely at noon, after which the cough was much looser. Ipecac. and antimonial mixture resumed; child passed a good night; there was no further recurrence of croup.

Took slops as food.

11th.—Temperature normal; quinine in half-grain doses with nitric acid and bark were prescribed as a tonic. The child is well again. The free emesis in the first instance and the purgative action of the castor oil subsequently acted beneficially in this case.

Superficial ulceration of soft palate and fauces.

C. S., aged 5, European, male, a strumous boy, pale and rather weakly, had been in fairly good health, and is of active habits. Refused food owing to soreness in throat, and was not disposed to play; complained of pain in throat

when swallowing. On examination there was general redness and a patch of superficial ulceration with white lymph on one side of the uvula and soft palate; there was no increase of saliva; no swelling of sub-maxillary glands, and no fever; the temperature was 99.8°, pulse 96, quick; no cough or stridor, or other alarming symptom other than the patchy superficial ulceration which caused difficulty of swallowing. The child appeared to be otherwise well.

The following treatment was adopted:—Potassæ chloras grs. v, Acid. Hydroch. dil. mm. iii, Quinîa Sulphas gr. i, Tinct. Cinchon. Co. mm. x, Decoct. Cinchon. ʒ iii, given every 3 hours. Port wine ʒ iv, three times a day; soup, milk, bread and butter, port wine and egg and cod-liver oil ʒ ii once a day. The ulceration after healing on one side spread to the opposite side of the soft palate. The whitish fibrinous patch caused anxiety lest it might be something of the nature of diphtheritic exudation. There was, however, complete absence of fever: the head was cool; there was no languor nor prostration, nor the stridulous cough which is the signal of the windpipe being affected. The boy took his food; was lively and cheerful, and with the above treatment was quite well in a week.

COCAINE IN THE TREATMENT OF HYPOPION.

BY ASSISTANT SURGEON GUNPUT SING,
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I VENTURE through your columns to bring to the notice of the profession the action of cocaine muriate in dispersing hypopion, as I believe no mention of this property of the drug has been made in the medical journals.

It came under my observation accidentally at this hospital, in the case of a Borah woman, aged 30, suffering from keratitis and hypopion in both eyes. At the time she arrived I was in the wards, but on account of the great pain and photophobia from which she was suffering, my assistant put some drops of a 2 per cent. solution of cocaine in both eyes, and told her to wait. When I came into the out-patient department he brought her up to me, when to his astonishment he found that the hypopion in the left eye had disappeared, and that that in the right eye was greatly diminished. He assured me that the hypopion was well marked in both eyes, that in the right eye having been very extensive. I could not quite believe it, so tapped both eyes to relieve the pain. A small shred of inspissated pus protruded from the wound in the right eye, and was removed by the forceps. I determined to try the effect of the drug on the next case of hypopion that came; and had an opportunity of doing so very shortly afterwards. In this case the hypopion

was of moderate size, and recent development and the instillation of a 4 per cent. solution caused it to disappear completely in two hours.

I then brought it to the notice of Dr. Keegan, who was extremely sceptical on the subject. A few days later, however, a Brahmini, aged 30, suffering from keratitis in the hospital, was found to have developed a hypopion in her left eye. I waited till Dr. Keegan's arrival, and showed it to him before using the cocaine upon her. The hypopion was extensive, but was completely removed in six hours by the instillation of a 4 per cent. solution of cocaine.

Since that time I have treated with cocaine every case of hypopion that has come under my observation, and have taken notes of these cases: and I have found that the drug invariably causes the disappearance of the hypopion when of at all recent formation. In one of longer standing it greatly diminishes their size, but generally some inspissated matter remains, over which it does not appear to have much power; and which has to be removed by tapping. In two cases the hypopion reformed within the next few days, but cocaine again dispersed it speedily, and it did not again appear.

In onyx and in cases where sufficient time has elapsed for disorganization of the corneal tissue, I have found that the drug has comparatively little effect.

I can give no explanation of this action of cocaine, unless it lies in its power of contracting all the bloodvessels within its reach and thus permitting absorption. I bring it to notice in the hope that others may record their observations after giving it a trial.

NOTES ON THE TREATMENT OF MALARIAL FEVERS WITH TINCTURE OF IODINE.

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FROM the 15th of April last up to date, fifty cases of malarial fevers have been treated with Iodine, and how well it has acted and how beneficial it has been as a substitute for quinine will be seen by the results in the cases appended, which came under my care during the time I officiated as Civil Surgeon and in medical charge of the Hyderabad Troops at Ellichpur.

It is not my intention in this paper to claim originality for the treatment. I simply desire to lay before the profession the good results that have been obtained by the administration of this drug internally.

Ellichpur is noted as the head-quarters of a malarious district of the Berars (in Central India), and it is at this place that my experience has been gained after a residence of six years.