

A Mirror of Hospital Practice

EPHEDRINE POISONING IN A HUMAN SUBJECT

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ALTHOUGH unpleasant toxic effects of ephedrine are sometimes met with in susceptible individuals after therapeutic administration of the drug, actual poisoning by a large amount is not usually seen. All its pharmacological effects including those of lethal doses have been thoroughly studied in animals only. The following short communication will therefore, it is hoped, be read with interest.

A young boy of about 14 years had an attack of difficulty in breathing which was diagnosed as bronchial asthma. A prescription containing the usual anti-spasmodic drugs was given to him. Information was received afterwards on the 'phone that the spasms had become rather severe and the mother of the boy wanted something to be done for relief. At this, a telephonic instruction was given to his father, who was a medical man, to add $\frac{1}{4}$ grain of ephedrine hydrochloride to each dose of the mixture. The doctor absently wrote 2 grains of ephedrine hydrochloride on the top of the prescription. This obviously signified 2 grains of the drug in each dose of the mixture. The prescription was taken to the nearest chemist's shop where it was served as written. The compounder did not note that an overdose of ephedrine had been prescribed; nor did he ask the prescribing doctor anything about it. The prescription having been served was taken to the patient who was given a dose of it at 1 p.m. The boy felt very ill within half an hour. This was reported to the father in his office who thinking it might be a severe attack of bronchial spasm instructed the mother over the 'phone to give a second dose of the medicine at 2-30 p.m. This however made the patient feel worse and he vomited probably a major portion of this dose. In this way he must have taken more than 2 grains of ephedrine within one and a half hours.

The symptoms, which appeared within half an hour, were of a very distressing nature. He felt sick, had vertigo and severe pain in the area of the heart with intense throbbing in the chest. One peculiar feature was that these sensations came on in successive bouts and he could tell his mother when he would get the throbbing. After they started, they increased gradually till they reached the fastigium, after which they slowly waned. After this another paroxysm would come. The palpitation and precordial pain appeared so violently and spasmodically that at the height of the attack the boy had to sit up and press hard with both hands on the cardiac area as if, as described by the patient in his own language, to prevent his heart from being forced out. This series of spasmodic attacks lasted for nearly two hours. He vomited frequently and could not retain even fluid. There was also considerable retching. He perspired profusely all over the body, his extremities were cold and he seemed to be in a state of collapse. He was very restless all the time. An exceedingly painful symptom was frequent desire to pass urine which he could not do owing to severe strangury. No blood was passed per urethram. Pulse was very rapid and feeble.

All these severe symptoms lasted for nearly two hours. When the patient was seen again at 4 p.m. the

same day he was just recovering and some of the symptoms were still present though with lesser intensity. It took him nearly the whole night to get over these symptoms and he felt relieved the next morning.

His asthma, however, disappeared completely.

SUCCESSFUL ADMINISTRATION OF SULPHANILAMIDE TO AN INFANT*

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A HEALTHY female child was born at the above hospital on 25th May last.

On the 20th day after birth the temperature rose from normal to 98.8°F. and it continued to rise steadily for the next four days until it reached 104°F. During this period the child was given an alkaline mixture, and glucose water and on the last two days, when the temperature was above 103°F., cold packs were applied, but there was no improvement.

The mother then drew my attention to an inflammatory condition of the vulva which was found to extend backwards around the anus and downwards on the inner sides of both thighs.

Half a tablet of prontosil rubrum (Bayer) was divided into four parts and given the same evening at two-hourly intervals. Boric fomentation every four hours and painting with 5 per cent mercurochrome was the local treatment. On the following day the axillary temperature was 100°F. No more prontosil rubrum was available so one tablet of prontosil album was divided into six equal parts and given every three hours. The same evening the temperature was 98°F. The fomentation was continued for one day more by which time all signs of inflammation had disappeared. The temperature remained below normal for the remaining eight days that the child remained in hospital.

Comment

This case is of interest because of the successful administration of prontosil to such a young child, with apparently no serious by-effects.

Acknowledgment.—I am thankful to Dr. S. N. Seal, chief medical officer, for his guidance, and to Dr. S. Brara, for her help in the treatment of the case.

A CASE OF TWIN PREGNANCY—ONE UTERINE AND THE OTHER EXTRA-UTERINE

By A. G. PEREIRA, L.M. & S.

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A FEMALE, aged 21 years, was admitted into the Government Hospital, Tellicherry, on 7th February, 1941, with fever following abortion. An honorary assistant surgeon of the hospital had attended on her at her home and he extracted a foetus of about 4 months 13 days previously, and the next day he saw the placenta, which was expelled. He gave the history that previous to the onset of abortion she had pain and tenderness on the right side of the abdomen over the appendicular region and there was also rigidity with high temperature and he prescribed

* Rearranged by Editor.

sulphonamide. The abortion took place the next day.

On admission into the hospital there was pain and tenderness in the right iliac region. There was also rigidity on the right side of abdomen. Temperature 102°F., pulse 122 per minute. She was put in Fowler's position. Urea sulphaside solution was injected and urea sulphaside tablets no. II were given orally (*t.d.s.*). The temperature came down to 100°F. on the 6th day and the pain on the right side decreased and she was on the way to recovery.

On 16th February the temperature rose again and a swelling began to appear in the lower part of the abdomen just to left of middle line. This steadily increased in size and extended a little above the umbilicus. The patient now began to show signs of distress—leucocytosis present. On 20th laparotomy was decided on. Under local anaesthesia the abdomen was opened by a left paramedian incision. The tumour was adherent to the peritoneum and, on opening it, foul-smelling dirty blood-coloured fluid with small streaks of pus escaped. There were dense adhesions all round but the hand could easily reach the right iliac fossa to the region of the appendix. It was thought inadvisable to put a drainage tube on the right side as there were dense adhesions and coils of intestine between the hand and the abdominal wall. Therefore a long tube was introduced up to the region of the appendix. Another tube was introduced in the direction of the umbilicus and the abdomen closed.

She had a stormy convalescence. Profuse bloody discharge with flakes of slough were coming through the tubes and the dressing had to be changed morning and evening.

On 16th March a mass looking like omentum was protruding through the wound. It was ligatured and excised. On 18th another mass was seen projecting. It was also ligatured and excised. The excised portion contained 2 small bones—radius and ulna. The next day the projecting mass was slowly dragged out of the wound and excised. It contained a humerus and scapula. On 21st a mass was projecting. It was slowly dragged out and consisted of a macerated foetus about 4 months old.

Profuse discharge continued for a few days more. Now she has only a small sinus and it is healing quite satisfactorily and the patient is in good condition.

A CASE OF TETANUS TREATED WITH SERUM AND MAGNESIUM SULPHATE

By N. C. PAUL, L.M.F.

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On the 22nd of March 1941, a tea garden coolie, aged about 16 years, attended the dispensary in the morning complaining of pain and difficulty in moving his neck. The symptoms were so slight that I took it to be a case of torticollis and prescribed accordingly. The next morning I was called to attend the boy in the lines.

Examination.—

1. The patient was conscious.
2. Complete lock-jaw but could drink water with difficulty between spasms.
3. The patient was unable to turn himself on his side, the whole body was in a rigid condition and there were tonic spasms almost every minute, the body assuming the position of opisthotonos during contractions.
4. His temperature was 100°F. Bowels not moved and no micturition during the last 18 hours. The patient had no sleep during the night.

While examining him I found a small neglected ulcer on the dorsum of his left foot, which I was told was from a bamboo prick he received about a month ago, for which he applied tincture of iodine.

He was at once put in a dark room, the ulcer was cauterized with carbolic acid and regularly treated with antiseptic dressings and the following treatment was adopted:—

23rd March.—Morning—6,000 international units of tetanus antitoxic serum was given intramuscularly. 12 a.m.—Two c.cm. of 25 per cent magnesium sulphate solution intravenously and at 6 p.m.—6,000 international units of tetanus antitoxic serum—intravenously.

24th.—No improvement was noticed. Morning—6,000 units of tetanus antitoxic serum intravenously. 12 a.m.—Five c.cm. of 25 per cent magnesium sulphate solution intravenously and at 6 p.m.—6,000 units of tetanus antitoxic serum was given intravenously.

25th.—No definite improvement, except slightly longer intervals between spasms. 6,000 units of tetanus antitoxic serum was given intramuscularly in the morning, and 10 c.cm. of 25 per cent magnesium sulphate solution intravenously in the evening.

26th.—Definite improvement was noticed. Ten c.cm. and 5 c.cm. magnesium sulphate solution was given morning and evening intravenously.

27th.—A more definite improvement was noticed. Ten c.cm. of magnesium sulphate solution was given morning and evening intravenously.

28th.—Five c.cm. of magnesium sulphate solution was given morning and evening intravenously.

29th, 30th and 31st March.—No magnesium sulphate was given and the contractions began to appear after longer intervals ($\frac{1}{2}$ to 1 hour or more) and not so severe as before. The general outlook of the patient was good though he could not open his mouth.

1st and 2nd April.—Five c.cm. of 25 per cent magnesium sulphate solution was given intravenously morning and evening.

3rd.—The patient could now sleep for a long time though there were some occasional contractions of a very slight nature. He could drink liquids and felt more comfortable, he also could open his mouth a little.

4th.—A purgative containing calomel followed by magnesium sulphate was given.

In addition to the above treatment, the patient was given a mixture containing potassium, sodium and ammonium bromide and chloral hydrate gr. x each four times daily and an occasional dose of *mist. alba*. The ulcer of the foot was dressed with *eusol* lotion. Plenty of drinks containing soda water, glucose with vitamin D and milk were given during the attack and from the 5th April rice and milk diet was given to start with, gradually increasing to his normal diet.

Points of interest in the case are:—

1. Severe tetanic convulsion developed from a neglected superficial ulcer on the foot from the prick of a bamboo stick after one month.
2. A relatively small dose of tetanus antitoxic serum was used yet the patient recovered. Total serum used 30,000 international units.
3. The effect of 25 per cent magnesium sulphate solution was very encouraging; the dose of 10 c.cm. was more effective than the smaller doses of 1 c.cm. to 5 c.cm. The intravenous route of the injection was adopted owing to the severity of the case. Total magnesium sulphate solution used—82 c.cm.

I am grateful to Mr. C. T. Cramphorn for his permission to report this case and to Dr. N. N. Ghose for his advice in managing it.