

is cheap and easily procurable locally. It will be experimented with further, and it is hoped that others who have lepers under treatment will try it and report to the writer their findings.

Some Modern Uses of Magnesium Sulphate

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In a *Materia Medica* of as recent a date as 1925 one finds, under the uses of magnesium sulphate, simply, 'It is one of the most useful of saline cathartics.' This paper attempts to give a few of the recent uses to which this exceedingly cheap drug lends itself.

As long ago as 1905, Meltzer and Auer demonstrated the sedative and anti-convulsive effects of magnesium sulphate, and since that time various attempts have been made to make use of these actions of the drug in tetanus, labour, anaesthesia and eclampsia. Several articles have appeared recommending its use as rectal, subcutaneous, intramuscular, intraspinal, and, more recently, intravenous injections.

Combined with serum treatment in tetanus, spasms of the muscles are undoubtedly relieved by intramuscular injections of mag. sulph. We have found in obstetrical work, where morphine is indicated, that its action is enhanced by dissolving it in 2 c.c. of 50 per cent mag. sulph. instead of water. It is being thus used in normal labour also, combined with rectal ether anaesthesia, in some of the large maternity hospitals, as a new form of twilight sleep.

In anaesthesia we believe it to be of decided value. For several months now we have been giving it to all our major operative cases as preparatory to a general anaesthetic. The routine order is to give hypodermically, one hour before operation, one-eighth grain of morphine sulphate in 2 c.c. sterile mag. sulph. of 50 per cent strength. This is repeated half an hour before operation. The advantages noted are the removal of the element of fear, the reduction of nervousness, use of less anaesthetic, prolonged period of sleep afterward, and less complaint of pain. The injection may be repeated, if thought advisable, after operation, substituting codeina or heroin for morphia. We consider that the general sedative effect of the mag. sulph. also lessens the incidence of post-operative vomiting.

With regard to the intravenous injections of mag. sulph. in eclampsia, the following notes on a recent article, by Lazard, in the *American Journal of Surgery*, may be found interesting. The treatment of eclampsia is directed toward:—

- First, the control of convulsions.
- Second, the elimination of toxins.
- Third, the reduction of the blood pressure, and oedema.
- Fourth, the removal of sources of irritation.

In the opinion of Lazard, the anti-convulsive action of the mag. sulph. and its dehydrating effect bring about the desired results as no other lines of treat-

ment do. He has abandoned colon and stomach washes as being sources of irritation and unnecessary, since the mag. sulph. alone suffices.

The routine treatment adopted by him is as follows :—

1. Twenty c.c. 10 per cent solution MgSO is given intravenously as soon after the first convulsion as possible.
2. Repeat injection every hour until convulsions are controlled.
3. Take blood pressure hourly. If after going down it begins to rise again to near what it was at time of convulsion, repeat injection; also repeat if convulsions recur after having been controlled.
4. If patient is comatose or very restless in a semi-comatose delirium and blood pressure is falling, give chloral gr. 20 and NaBr gr. 60, per rectum.
5. All patients to be prepared for delivery as soon as they are quiet enough to do so.

THE CLINIC

Pregnancy after a Sterilization Operation

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Early in February, 1928 a patient with a generally contracted pelvis was admitted to the Maternity Block for Cæsarean section. She gave an interesting history. She was first operated on in this hospital for sterility, and had a Gilliam's operation done for retroversion. She soon became pregnant; had a long time in labour, and was finally delivered of a dead child by Cæsarean section. There was some trouble about the stitches, and the abdominal wound had to be opened up—her third operation. The fourth was a Cæsarean, with twins. The fifth was Cæsarean, with sterilization. That was seven years ago. She was much aggrieved at becoming pregnant again. I looked up the old operation register and found the last operation entered as, 'Cæsarean section, with ligation and section of tubes.' I confess I disbelieved that the tubes had been divided, and thought that they must have been merely ligated.

On February 20th she went into labour. Cæsarean section was performed, and a large male child, of eight and a half pounds, was delivered. There were no adhesions in the abdomen, a remarkable fact after so many operations. Still more remarkable, however, was the finding that both tubes were divided and the cut ends were lying about half an inch apart in the broad ligaments. The peritoneum must have become sufficiently canalized to admit of the ovum finding its way to the uterus, and the woman was lucky to have escaped an ectopic gestation. At this sixth operation and fourth Cæsarean section the portions of tube next to the uterus were re-divided and the ends overlapped, so as to avoid the risk of another pregnancy.

Although such a case must be rare, it clearly proves that section of the tubes is not sufficient to ensure sterilization, and overlapping of the cut ends is more than advisable.