

The liquid extract prepared by a well-known firm was used, and there was every reason to suppose that it was efficient.

The diet was carefully regulated and remained unaltered during the whole period of observation; and from the circumstances of the case, it is beyond doubt that no additional article of diet was obtained.

The patient was under treatment from October 6th to November 7th when he left hospital.

While outside and before his diet was regulated, he stated that the amount of urine excreted was very excessive.

The period of treatment was divided into five portions:

(a) From the 6th to 11th October (6 days) no drug was exhibited.

(b) From the 12th to 18th October (7 days), liquid extract of Jambul was given in 3i doses three times a day.

(c) From the 19th to 28th October (10 days), the dose was increased to ʒiiss. t. d. s.

(d) From the 29th to 31st October no drug was given.

(e) From the 1st to 7th November one grain of opium was given three times a day.

It was intended to increase the dose of opium, but unfortunately the patient left.

The following table gives the daily average excretion of urine and sugar, as well as the daily average specific gravity of the urine for these periods. For convenience sake the periods during which no drugs were employed are placed together.

Period.	Treatment.	Daily average amount of urine in c.c.	Daily average specific gravity.	Daily average amount of sugar in grammes.
(a) Oct. 6—11 ...	Nil.	2710	1036	225.3
(b) „ 12—18 ...	Liquid ext. Jambul ʒi. t. d. s.	3231	1037	263.1
(c) „ 19—28 .	Liquid ext. Jambul ʒiiss. t. d. s.	3012	1035	219.5
(d) „ 29—31 ...	Nil.	2780	1036	201.8
(e) Nov. 1— 7 ...	Pulv. opii, gr. i. t. d. s.	2700	1032	153.5

From this table the well-known action of opium in this disease is apparent, and no doubt if the drug had been pushed, its effects would have been more satisfactory.

Apart from its influence upon the excretion of sugar and urine, it remarkably soothed his general symptoms. Before its use he complained bitterly of pains in various parts of his body, which soon vanished after two or three doses.

Nothing definite can be said regarding the influence of Jambul in this case. If it had any effect is doubtful; it seemed to increase the symptoms. The greatest excretion of urine and sugar on any one day during the period of

treatment occurred while he was taking ʒiiss. doses (*viz.*, on the 27th). On that day 4320 c.c. of urine with a specific gravity of 1037 and containing 448 grammes of sugar were excreted.

NOTES ON CASES OF ABDOMINAL SURGERY.

BY SURGEON G. JAMESON, M.B.,
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1. Penetrating wound of abdomen with protrusion of viscera.

Koonta, female, *æt.* 55 years, admitted into the hospital on the 26th August last at 3-30 P.M., suffering from a wound of the abdominal wall with protrusion of viscera.

History.—Nineteen hours previous to admission patient had been gored by a bull; this was almost immediately followed by a protrusion of viscera. She was at once brought to this hospital from the mofussil, the only protection afforded to the viscera during transit being a piece of dirty cloth.

Condition on admission.—Expression anxious, breathing quick and shallow, pulse small and rapid, temperature sub-normal, she was in fact in a condition of collapse.

One inch above and to the right of the umbilicus was a horizontal wound 2" long; through this the stomach, gastro-colic omentum, large and a portion of small intestine were protruding: the stomach and intestines were distended, scarlet in colour and covered with patches of inflammatory lymph.

Treatment.—Chloroform being administered, I proceeded more carefully to examine into the condition of affairs; pulling down more gut from the abdominal cavity, I found its condition fairly normal, then each portion of extruded gut was carefully examined, all pieces of straw and dirt removed, and the whole thoroughly washed with boracic acid lotion. A small wound of the peritoneal covering of the large intestine was found, but not of sufficient extent to require suturing. The abdominal wound was enlarged, in order to enable me to reduce the gut without employing a force, which would, considering its condition, have been unjustifiable. The extruded viscera were now reduced and the abdominal cavity flushed with boracic acid lotion. The edges of the wound were freshened with scissors, the peritoneum and deep structures of the abdominal wall brought into apposition with carbolized gut sutures, drainage tube inserted between the deep and superficial structures, and finally, the superficial structures brought together with horse-hair sutures. The wound was dressed with iodoform, gutta-percha tissue and sal alembroth wool. The patient was now found to be almost pulseless at the wrist; a hypodermic injection of sulphuric ether was administered and the patient removed to bed.

11 P.M.—Does not complain of much pain. Temperature 98.4°F, pulse better.

27th, 2 A.M.—Temperature 101°F, passed urine naturally.

8 A.M.—Temperature 99°F, complains of thirst and that breathing causes her pain.

Evening temp. 100.2°F.

28th—Morning temp. 100.8°F, vomits everything she eats or drinks, breathing still difficult, no lung complication—Soap and water enema ordered.

Evening temp. 101.4°F.

29th.—Morning temp. 99.4°F, vomiting ceased, condition much improved.

Evening temp. 99.6°F.

30th.—Morning temp. 99°F.

Evening temp. 99.6°F, feels much better.

31st.—Had diarrhoea in the night.

Morning temp. 101.2°F.

Pulv. creta aromat cum opio gr. x, t. d. ordered.

Dressings changed for the first time and the drainage tube and most of the superficial stitches removed. The greater portion of the wound united.

Evening temp. 102°F.

Sept. 1st.—Morning temp. 99.4°F.

Evening temp. 99.8°F. Diarrhoea stopped; all medicines omitted.

From this date there is nothing of moment to record. The course was one of uninterrupted recovery, the temperature never rising above 99°F.; the remaining stitches were removed on the 3rd, and the patient discharged well on the 11th.

Remarks.—Recovery after such a severe injury with the gut in the condition of that found in the above case, is, I think, remarkable. The result in the above case may be fairly attributed to careful cleansing of the extruded portion of gut combined with flushing of the whole of the abdominal cavity.

2. Ovarian Tumour. Ovariectomy.

Kurani, age 45 years, admitted into this hospital on the 24th August last.

History.—Two years ago she first noticed an enlargement in the left iliac region, this had gone on steadily increasing in size up to date. One year ago she was tapped for ascites and a large amount of fluid drawn off, but the presence of the tumour at that date does not appear to have been made out. Moxae had also been applied to the abdominal wall in the umbilical region by natives.

Condition on admission.—She is a poor emaciated creature. On inspection an irregular swelling is seen to occupy the iliac, hypogastric, umbilical, right lumbar and hypochondriac regions. On palpation the tumour is felt to be lobulated, hard, freely movable, no fluctuation. On percussion absolute dulness over the

tumour; there is also dulness in both flanks when the patient is lying down: a resonant note is got between the dulness in the flank and that of the tumour.

Treatment.—A few days were spent in preparing the patient for operation. On the 7th September at 3-30 P.M. chloroform being administered, I proceeded, assisted by Assistant-Surgeon Durgananda Sen, to operate. An incision was made in the linea alba, commencing below the umbilicus and ending one inch above the pubes. The peritoneum was reached without difficulty. This being opened, the tumour came in view. It was found to be almost entirely free from adhesions and to have an indistinct sense of fluctuation. A.S. Wells' trocar was introduced, but only a small amount of treacly fluid escaped, the trocar was withdrawn and the finger introduced, when the tumour was found to be almost solid, consisting of innumerable small cysts. These were broken down with the finger and evacuated until the bulk of the tumour was reduced sufficiently to enable me to get it out of the abdominal incision. A slight adhesion to the posterior surface of the uterus was separated and a very broad pedicle ligatured with prepared silk. The pedicle was now divided and the tumour removed. The pedicle was examined and being found all right was dropped into the pelvis. The right ovary was examined and found normal. The abdominal cavity was now flushed with tepid boracic acid lotion, a few clots removed and the wound closed. Prepared silk was used for the deep sutures, these being introduced from within outwards, and horse-hair for the superficial sutures. The wound was then dressed with iodoform, gutta-percha tissue and sal alembroth wool. Not more than a drachm of blood was lost during the operation, which lasted about an hour.

7 P.M.—Temperature 100.2°F, complains of pain, pulse weak. The following mixture ordered:—

R	Spt. Chloroform	m. xx.
	Spt. ammon. aromat.	Liqr. morph.		
	hydrochlor ad.	3ss.
	aquam ad.	ʒi. m.

sig. every 3 hours.

8th.—Morning temp. 100°F, still complains of pain. Passed urine during the night, dressings in order, mixture continued.

Evening temp. 100.4°F.

9th.—Morning temp. 99.4°F, dressings in order.

Evening temp. 103.4°F, mixture continued.

10th.—Morning temp. 99.2°F.

Evening temp. 101.8°F. No complaint; mixture discontinued.

11th.—Morning temp. 99.4°F.

Evening temp. 100.2°F, had two loose stools.

RECORD OF TEMPERATURE, &C.

KADUMBINI, age 20.—*Disease*, Obstruction of bowels. *Date of attack*, September 13, 1891. *Result*, Cure *Date of result*, September 29, 1891.

Dates of Observation.	SEPT.	17	18	19	20	21	22	23	24	25	26	27	28	29						
Days of Disease.		1	2	3	4	5	6	7	8	9	10	11	12	13						
Temperature Fahrenheit. 108°	Time. 8 9	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5	Time. 8 5
107°	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.	a.m.p.m.
108°	8																			
107°	6																			
106°	4																			
105°	2																			
104°	8																			
103°	6																			
102°	4																			
101°	2																			
100°	8																			
99°	6																			
98°	4																			
97°	2																			
96°	8																			
NUMBER OF STOOLS	6																			
PULSE PER MINUTE	4																			
RESPIRATIONS PER MINUTE	2																			

Operation at 4 p.m.

Passed flatus twice in night; urine drawn off.

Passed urine; no stool.

Passed scybala; enema given.

Had copious stool.

Discharged.

Bowels regular.

12th.—Morning temp. 99·4°F.

Evening temp. 99·2°F, dressings in order.

13th.—Morning temp. 99·2°F, dressings opened for the first time since the operation, no trace of pus or blood, wound found healed, stitches removed. Same dressing of sal alembroth wool applied.

Evening temp. 101·2°F.

14th.—Morning temp. 99·2°F. Found the patient walking about on my morning visit.

Evening temp. 99·4°F. From now there is nothing to record. The temperature never rose above 99°F, and the patient had not a bad symptom. She was discharged to her home on the 20th.

Remarks.—Since sending the above for publication, I recollect not having mentioned, that on opening the peritoneum a quantity (about a quart) of ascitic fluid escaped; the presence of this fluid would, of course, account for the dulness on percussion found in the flanks.

3. Intestinal Obstruction. Laparotomy.

Kadambini, female, *æt.* 20, was sent to me by one of the native practitioners of Midnapore on the 17th September last, and admitted to hospital on that day at 9 A.M., suffering from obstruction of the bowels.

History.—At 7 A.M. on the 13th (*i.e.*, four days previous to admission) whilst walking about she suddenly felt severe pain in the abdomen; she could not localise the pain; constipation was complete from this time. At 4 P.M. on the same day vomiting set in; this continued up to the time of admission. The vomiting was frequent and profuse, but never at any time became stercoraceous. No alteration in the amount of urine. She had been treated by a *kabiraj* and later by the medical practitioner who sent her to me, but without any beneficial result.

There was a history of an abortion ten months previous to date, after which the patient remained in bed for two months and had severe pain in the pelvic region.

Condition on admission.—Expression anxious, pulse thin and rapid, complains of severe pain over the whole abdomen, most severe below the ensiform cartilage. Vomiting frequent, abdomen distended, tympanitic on percussion with a slight suspicion of dulness in the right iliac region. Temperature 97·8°.

A soap and water enema was given but came away without bringing any faecal matter.

3-30 P.M.—She had been able to retain a little milk and did not complain of so much pain, but her pulse was weaker: had not passed fæces or flatus. I determined to operate at once.

Operation.—Chloroform having been administered and assisted by Assistant-Surgeon Surendra Nath Dutta, I opened the abdominal cavity by an incision in the linea alba 4' long, commencing just below the umbilicus. Small

intestine was seen to be very much congested. I now introduced my hand into the cavity and began to search for the cause of obstruction. After a difficult search I found a piece of collapsed gut deep down in the right iliac region, and following this up with my fingers came across a loop of gut encircled by a band. This loop was drawn out of the incision and carefully examined; the gut on the distal side of the obstruction was very much distended and intensely congested, that on the proximal side collapsed and fairly normal. The obstruction consisted of a band of fibrous tissue the thickness of a slate pencil, apparently having its attachments to the mesentery, and this band completely encircled a loop of gut. The band was divided with a pair of scissors and immediately the gut was freed. The tightness of the constriction was evidenced by a black line found on the gut in the position occupied by the band. The intestines were now returned and the abdominal cavity flushed with tepid boracic acid lotion. The edges of the incision were brought into apposition in the usual manner by means of horse-hair sutures and the wound dressed with iodoform gutta-percha tissue and sal alembroth wool.

Half an ounce of brandy was given to the patient on her return to consciousness.

9 P.M.—Pulse very much improved, no vomiting since the operation. Temp. 98·4°F.

18th.—Morning temp. 99·2°F, complains of only slight pain, can now retain milk without difficulty, passed flatus twice during the night, dressings in order.

4 P.M.—Urine had to be drawn off with a catheter, passed flatus several times. Temp. 100·4°F.

19th.—Morning temp. 99·2°F, menstruation set in during the night; passed urine naturally.

Evening temp. 99·4°F.

20th.—Morning temp. 99·6°F, passed some hard scybalæ. Soap and water enema ordered, this had the effect of bringing away more scybalæ.

Evening temp. 99·6°F.

21st.—Morning temp. 99·2°F, had a copious stool during the night.

Evening temp. 100°F.

22nd.—Morning temp. 99·8°F.

Evening temp. 99·6°F.

From this up to the date of discharge there is nothing of moment to record. The temperature never rose above 99·4°F, and the patient passed a natural stool daily. The stitches were removed on the 25th and the patient was discharged to her home on the 29th.

A temperature chart is annexed.

Remarks.—The above case shows the advisability of early operation in cases of obstruction. It was somewhat difficult for me to make up my mind to operate on the afternoon of the

17th, seeing that, excepting the state of the pulse, the patient's condition was better than that of the morning; but, remembering seeing a case of hernia in which there were no definite symptoms of strangulation, but on operation the gut was found to be almost in a state of gangrene, I determined that the best chance for the patient was immediate operation: had I had the benefit of a clear history of the case at the time of admission, I should have operated in the morning, but not having that, I first tried the effect of an enema.

In conclusion, I have to thank my Assistant Surgeon Durgananda Sen not only for the great help he gave me at the time of operation in the above cases, but also for his attention to them after treatment.

HYPNOTISM AND SUGGESTION.

By R. ARTHUR, M.A., M.D., EDIN.

THE subject of Hypnotism has excited during the last few years so much interest, especially in scientific circles, that I think a short account of it will not prove unwelcome to those medical men who are ever anxious to add to their weapons of offence against disease. As this article must necessarily be short, I only touch upon the history of the subject, and avoid indulging in any theories as to the nature of the hypnotic state, suffice it to say that, under the name of animal magnetism, it was introduced to the modern world about 1780, by Anthony Mesmer. Sixty years later, Elliotson, of London, and Braid, of Manchester, who invented the name of Hypnotism, used it with striking success in the treatment of disease, but were nevertheless denounced as charlatans by their contemporaries. For Indian medical men, it will be interesting to note that the Abbé Faria who came to Paris in 1814, and roused anew the curiosity about mesmerism which Mesmer himself started, had acquired his knowledge of the subject in India from the fakirs. Again in 1846, Esdaile, a surgeon in the service of the East India Company, employed hypnotism successfully as an anæsthetic in surgery. The Government was so struck by his results that they placed a small hospital near Calcutta at his disposal. He published a book—"Mesmerism in India"—in which are recorded more than 250 operations painlessly performed, among them being lithotomy, amputations, and removals of tumours. It was not till Liébault and afterwards Bernheim, of Nancy, investigated the subject that its claim to be a branch of the therapeutic art was allowed for a moment. Since then numerous observers, among whom are Charcot, Luys and Bérillon in France, Heidenhain and Moll in Germany, Van Renterghem and Van Eeden in Holland, Tuckey, Kingsbury, and Felkin in England, Forel in Switzerland and Delbouef in Belgium

have both studied and written on the question. The British Medical Association has appointed a commission on the subject and everywhere medical men are studying it and introducing it into their practice.

I shall confine myself to a description of the state, the various methods used in producing it, and a list of some of the disorders which have been successfully treated by means of it. It is not easy to give a satisfactory definition of hypnotism. It is a psychical state which presents many analogies to and some differences from natural sleep. Of what this state really is, or the ultimate cause of its production, little is as yet known. It seems as if a condition of inhibition of the higher cortical centres were brought about. This inhibition extends especially to the reasoning faculties, which in the waking state modify and control the play of the imagination. The mind undisturbed by ordinary stimuli from without is rendered much more susceptible to individual impressions which are forced upon it, and is, moreover, able to concentrate the attention upon an idea in a way impossible in the waking state. Hypnotism like natural sleep exalts the imagination and makes the brain more susceptible to suggestion. It is this susceptibility to suggestion which is the chief characteristic of the hypnotic state and the *raison d'être* of its use in therapeutics. It is for this reason that Bernheim, the chief authority on the subject, defines hypnotism as the induction of a peculiar psychical condition which increases the susceptibility to suggestion. This heightened susceptibility is the essential element. The hypnotic state *per se* is of little value in the treatment of disease, and only acts as a means of obtaining this increased susceptibility. Here lies the keynote to hypnotic treatment, and its discovery by Liébault raised hypnotism from the charlatanism of the Mesmerists and Animal Magnetists to the dignity of a science.

It is a popular impression, caused probably by the public exhibitions of Mesmerism, that the phenomena produced on the induction of the hypnotic state are constant, including the entire loss of will-power in the subject, and the possibility of any delusion or hallucination being raised in his mind. This mistake has had much to do with the disfavour with which both the medical profession and the public have hitherto regarded hypnotism. The truth is that only a very small percentage of persons show these phenomena when influenced. In the majority of cases the condition present is so different that the uninformed or sceptical observer usually concludes that the subject is only simulating the state. The reason of this is that there are various degrees of hypnotism of which the first mentioned state is the rarest and most pronounced. These degrees vary from the presence