

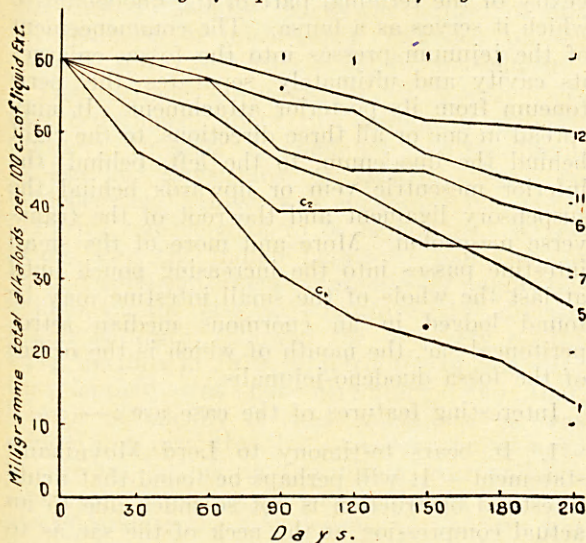
TABLE II  
Samples kept in frigidaire (6° to 8°C.)

(7)	(8)	(9)	(10)	(11)	(12)
Control sample	With 1 per cent hydroquinone	With 0.5 per cent meta-phosphoric acid	With 0.01 per cent merthio-late	With 0.1 per cent ascorbic acid	With 0.5 per cent ascorbic acid
59.83	59.83	59.83	59.83	59.83	59.83
52.86	54.37	57.37	54.37	57.10	59.83
47.40	54.37	46.03	50.13	57.10	59.83
39.34	54.37	43.57	44.12	54.09	54.37
39.34	48.77	39.89	37.70	52.86	54.37
34.42	44.12	34.42	36.61	47.40	51.50
34.42	44.12	34.42	35.52	44.12	50.82
30.33	40.57	30.33	31.83	41.12	50.13

N.B.—The figures indicate mg. of total alkaloids of ergot per 100 c.cm. of the liquid extract.

stabilizing agents except ascorbic acid has any demonstrable influence on the rate of deterioration. The influence exerted by ascorbic acid on ergot extracts is well marked both in room temperature as well as in the refrigerator, a strength of 0.5 per cent being more suitable to prevent rapid deterioration. The graph below brings out the point very clearly.

Graph showing influence of ascorbic acid on the stability of liquid extract of ergot



- (1) Control sample (C<sub>1</sub>) in room temperature.
- (7) Control sample (C<sub>2</sub>) in refrigerator.
- (5) Ergot extract with 0.1 per cent ascorbic acid in room temperature.
- (6) Ergot extract with 0.5 per cent ascorbic acid in room temperature.
- (11) Ergot extract with 0.1 per cent ascorbic acid in refrigerator.
- (12) Ergot extract with 0.5 per cent ascorbic acid in refrigerator.

Note how the deterioration is prevented by ascorbic acid even when maintained at room temperature. In the refrigerator with 0.5 per cent ascorbic acid (no. 12), the rate of deterioration is markedly checked.

### Summary and conclusions

(1) Attempts have been made to check the rapid rate of deterioration of liquid extract of ergot (B. P. 1932) in tropical climates by the addition of preservatives, anti-oxidants and reducing agents such as hydroquinone, meta-phosphoric acid, merthiolate (sodium ethyl mercurithiosalicylate) and ascorbic acid.

(2) Ascorbic acid is the only agent which has a demonstrable effect on the stability of liquid extracts of ergot. Though 0.10 per cent is effective, 0.5 per cent has a much better action in this respect.

(3) In the interest of the consumers and in the interest of scientific medical practice, liquid extracts of ergot should not be allowed to be stored haphazardly under ordinary conditions exposed to heat and light. Even under the best of conditions of manufacture (i.e., prepared from a good and potent batch of ergot and the extract maintained at a pH level of about 2.7), ergot extracts deteriorate rapidly in 7 to 10 months from the time of its preparation. This may be largely checked by the addition of ascorbic acid in 0.5 per cent concentration. Ethical manufacturers may help the cause of medical practice a great deal by adding ascorbic acid in adequate concentration to their liquid extracts of ergot and by advising pharmacists to store these in a cool place, or better in a refrigerator, wherever available.

### REFERENCES

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## A Mirror of Hospital Practice

### IMPERFORATE EXTERNAL URINARY MEATUS IN A NEW-BORN CHILD

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In November 1941 a male child was brought to me at the civil hospital, Silchar, with the history that it had not passed any urine since its birth 36 hours previously. The child was delivered in the maternity ward of the Siva Sundari Nari Sikhyasram, Silchar.

The child did not appear to be in any distress nor were there any signs of bladder distension. There were no signs of urine having been passed per rectum and this was confirmed on examination, which showed no internal or external vesical fistula. The corona glandis was well formed, but the prepuce was absent and a slight depression could be seen at the meatal site.

With a cataract knife a small incision was made at the depression and after going through a membrane one-sixth of an inch thick, the urethral cavity was entered.

A no. 1 rubber catheter introduced through the incision was passed into the bladder without difficulty and 2 drachms of light-coloured urine came away. No anaesthesia was required for the operation.

The incision was kept patent by passing a catheter three times a day for three days. The child was discharged after ten days, during which urine was passed without any trouble. Further reports are that the child is quite well.

No other developmental abnormalities were found.

This is the first case of the kind we have encountered in 25 years of hospital and private work.

My thanks are due to Lieut.-Colonel E. T. N. Taylor, I.M.S., for kindly permitting me to publish this note, also to Dr. R. Chowdhury for sending the case to us, and to Dr. S. K. Dutta and Mrs. I. Roy for helping in diagnosis and operation.

### A STRANGULATED PARADUODENAL HERNIA

By M. V. RAJAPURKAR, L.M.P. (C. P.)

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*History.*—On the 24th September, 1941, M., a Hindu male, aged 40, was admitted to hospital with a history of severe griping pain in the upper abdomen for two days and inability to pass faeces or flatus for the last 12 hours. No history of previous illness. He had vomited twice during the last 3 hours, and had a feeling of nausea and severe thirst.

*Physical examination.*—The patient was very restless and complained of severe griping pain in the abdomen, particularly in the epigastrium.

Temperature—99°F.

Pulse—110 per minute, small in volume and low in tension.

Respiration—36 per minute, mainly thoraco-abdominal.

Tongue—dry and furred.

Abdomen—there was a fullness in the upper abdomen, particularly in the epigastrium. The abdomen was soft but not tender. Auscultation of the abdomen revealed no signs of increased peristalsis.

Liver dullness—present, normal.

Hernial orifices—normal.

Rectal examination—nothing abnormal detected.

Nervous system—nothing abnormal detected.

Heart and lungs—nothing abnormal detected.

A definite conclusion could not be arrived at so it was decided to watch the patient. Meanwhile the following treatment was carried out:—

At 11 a.m.—(a) A high compound enema was given with poor result.

(b) Glucose solution 25 per cent 50 c.cm. was given intravenously.

(c) Morphine hydrochloride gr.  $\frac{1}{4}$  and atropine sulphate gr.  $\frac{1}{100}$  was injected subcutaneously.

At 12 noon.—A high compound enema was repeated with no result.

At 12 p.m.—The patient was obviously very ill and becoming worse. The pulse was now 122, small in volume and low in tension and so the case was taken to the table with a provisional diagnosis of intestinal obstruction.

*Operation.*—Under chloroform anaesthesia a right paramedian incision was made and the abdomen opened in the usual way. The part of the ileum near the caecum presented in the incision. The caecum and the appendix were normal. On tracing the intestine upwards for about a foot it was found collapsed, which could be traced to the paraduodenal fossa. The margin of the paraduodenal fossa was stretched by a finger

and the whole of the jejunum and part of the ileum was released from the strangulation. The gut was found to have twisted round itself. The gut having been released the mouth of the sac was stitched. The intestines were healthy. Flatus tube was passed on the table with good results.

*Post-operative treatment.*—(1) Fowler's position in bed. (2) Liquid diet. (3) Intravenous glucose 25 per cent 40 c.cm. was given twice daily for two days. (4) Pitressin 0.5 c.cm. was given every 6 hours for the first 24 hours. (5) Morphine hydrochloride gr.  $\frac{1}{4}$  and atropine sulphate gr.  $\frac{1}{4}$  was injected subcutaneously twice daily for two days.

The patient made an uneventful recovery. The wound healed by first intention and he was discharged cured on the 14th October, 1941.

*Comment.*—In view of its extreme rarity a brief account of the applied anatomy and the mechanism of formation of these herniae is given.

A paraduodenal fossa is very rarely present, but when present it is larger than others. Its mouth looks medially and its free crescentic margin which may be 2 inches long communicates with the lateral extremities of the free borders of the superior and inferior fossa when present. The inferior mesenteric vein runs upwards in its anterior wall and the ascending branch of the left colic artery may occupy a similar position or may lie along its lateral margin. When a hernia enters this fossa it carries its sac downwards and laterally behind the posterior parietal peritoneum and the vessels already mentioned, but in front of the left ureter or kidney.

Normally it is occupied or filled by the convexity of the terminal part of the duodenum to which it serves as a bursa. The commencement of the jejunum presses into the fossa, enlarges its cavity and ultimately separates the peritoneum from its posterior attachment. It may spread in one or all three directions, to the right behind the duodenum, to the left behind the inferior mesenteric vein or upwards behind the suspensory ligament and the root of the transverse mesocolon. More and more of the small intestine passes into the increasing pouch until at last the whole of the small intestine may be found lodged in an enormous median retroperitoneal sac, the mouth of which is the orifice of the fossa duodeno-jejunalis.

Interesting features of the case are:—

1. It bears testimony to Lord Moynihan's statement—'It will perhaps be found that acute intestinal obstruction is not so much due to an actual compression at the neck of the sac as to a volvulus of the bowel; all gut in the hernial sac is twisted round the entering and returning loops'.

2. In these cases there is often abdominal tenderness and rigidity owing to extravasation of blood in the peritoneum. It was an absent feature in this case.

3. Coprostitis is an indefinite sign of intestinal obstruction and should not be relied upon for diagnosis or treatment. (The patient's bowel had moved 12 hours before admission to the hospital.)