of his behaviour, he fell downstairs and was picked up with complete amnesia for the whole of his past life. Concussion was at first diagnosed, but the picture was soon seen to be essentially a hysterical one, and he was admitted to hospital after attempts at recovery of memory by persuasion had failed. Administration of nitrous oxide, using the technique described, produced a dramatic return of memory for the events preceding the fall and for the main events of his past life. Subsequent administration enabled him to recall and relive his activities during previous fugue states, which he claimed had never been recollected. Psychotherapy was then continued along orthodox lines.

Such dramatic recollections and abreactions are very pleasing at first sight, but they do not constitute the principal justification for the use of this method. An experienced and sympathetic psychiatrist can usually resolve a hysterical amnesia of this type by almost any method provided that he has won the confidence of the patient. Nitrous oxide merely provides a simple, quick, and efficient method which may be preferred on this account. Its usefulness is, however, most apparent in cases requiring difficult psychological analysis, where the time factor is even more important and where a rapid resolution of repressed conflicts is very desirable.

The second case belongs to this type. This patient presented a typical severe anxiety neurosis.

Case 2.—Mrs. A., aged 32; admitted May, 1943. Reason for referral: feelings of exhaustion and weakness; loss of weight; worry over bowels and food. The symptoms had been present to some extent for about 10 years. The immediate reason for their onset seemed simple and straightforward. She was the child of a financially poor family, and after winning a series of scholarships had had a brilliant undergraduate career at a provincial university and had come with a research scholarship to Oxford. There she found herself, both socially and intellectually, in much deeper waters, and since she had always been used to unquestioned leadership at school and at her own university she reacted with anxiety symptoms. She subsequently married a professor in her own field of work and had three children in very rapid succession. She found difficulty in living up to her husband's family, and the stresses to which she was subjected increased the anxiety symptoms so that a typical vicious circle of anxiety was created. Such a problem is often fairly readily resolved by superficial analysis combined with explanation, persuasion, and re-education. In this case, however, a deeper and much more complex set of factors were speedily uncovered. Behind the difficulties in her married life there lay a pathological emotional relationship with her father, the solution of which was essential to her recovery. Analysis was at first slow and difficult, but the repeated use of nitrous oxide inhalations produced a rapid flow of forgotten associations of a highly painful sexual character. The patient herself repeatedly asked for the apparatus during the process of free association, and learned how to use it without assistance or advice during difficult periods in the treatment. In this fashion a course of analytical psychotherapy which in the ordinary way would certainly have lasted a year was successfully concluded in six months, and the patient was then able to return home.

Comment

It seems certain, from our experience, that other methods of narco-analysis could not have achieved similar results without a far greater expenditure of time for therapist and patient. Repeated sessions under narcosis were necessary, and would have been necessary whatever narcotic was employed. One can resolve a hysterical amnesia or obtain an abreaction to a particular traumatic event in one session, but one cannot unravel the trend of events, often spread over a number of years, which go to the evolution of a problem of this type. In such a case the availability of narcosis "on tap" in the consulting-room, ready to be used at any moment in the course of analysis, is a very great advantage. Patients themselves express a strong preference for the nitrous oxide technique, and, where both have been used in a single case, access to hidden mental conflicts is fully as effective with gas as it is with a barbiturate.

Summary

The value and limitations of the method of narco-analysis in psychotherapy are briefly discussed. The intravenous injection of a barbiturate has been the method generally employed. Nitrous oxide inhalation is claimed to be fully as effective for this purpose; it is quicker, simpler, and safer, and can be used in the consulting-room at any time during the course of psychiatric treatment.

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Medical Memoranda

Large Goitre in a Child of 10

The following case history, with a photograph of the patient, may be considered worth publishing.

A girl aged 10, of miserably poor parents from Abu Tig, in Upper Egypt, came to this hospital in November, 1943. She had a history of a gradual enlargement of the neck, and general ill-health, of four years' duration. There was no complaint of dyspnoea or dysphagia.

On examination the child was seen to be wizened, anaemic, and poorly developed. Though alleged to be 10 years old she weighed only 43 lb., the average weight of a child of 6. There was a large, somewhat nodular, fairly firm bilobed mass, obviously a goitre, extending from mandible to manubrium and well beyond the sides of the neck (see photograph). The tumour was freely movable on manipulation and deglutition, and there was no stridor. A number of enlarged subcutaneous veins were observed moving in different directions over the tumour. The circumference of the neck and tumour varied from 18 to 20 inches. The child was found to be suffering from ankylostomiasis, as is usual with some 90% of Egyptian "fellahin." Her haemoglobin was only 60%, and so the ankylostomiasis and anaemia were treated before operation. She also had some dermatitis over the tumour and chest, which can be noted in the photograph; this responded quickly to simple ointments. There were no signs of thyrotoxicosis.

Operation.—As there were no facilities for intratracheal anaesthesia the patient was given 2 drachms of paraldehyde per rectum one hour and 1/200 gr. of atropine half an hour before operation. Only a very small amount of open ether was necessary after this premedication, and there was no anxiety over the airway throughout the operation. The usual "collar" incision was employed, and all but a small portion of the thyroid mass was excised. There was no difficulty apart from the number and size of the vessels, and haemorrhage was minimal. A small drain was inserted through a stab wound below the incision, being removed after 48 hours. Convalescence was rapid and uneventful, and the father insisted on removing the child some three weeks after the operation, before any great improvement in the general condition could be expected.

Examination of the Tumour.—The growth was in two parts, corresponding to the right and left lobes of the thyroid gland and parts of the isthmus. In appearance it was similar to normal thyroid tissue, but with numerous cysts, varying in size and filled with dark viscid fluid. The right-hand portion measured 6 by 2½ by 2½ in., and the left portion 5 by 2½ by 2½ in. The microscopical report stated, "The appearances are those of a papillary adenoma of the thyroid gland."

My reasons for reporting this case are the large size of the goitre, the comparative brevity of the history, and the youth of the patient. I am indebted to the pathologist and the photographer for their help.

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E. N. CALLUM, F.R.C.S.Ed.

Varicella and Herpes Zoster: An Experiment

Observations, both clinical and experimental, have repeatedly been made which suggest the existence of a close relationship between the aetiological agents of varicella and herpes zoster. In view of this the following experiment was carried out to find whether convalescent herpes zoster serum would be effective in preventing varicella in varicella contacts. The scale of the experiment was small, but the findings are perhaps suggestive enough to justify publication.

Blood was taken from two herpes zoster patients during the second week after appearance of the eruption. After clotting, the serum was put up in ampoules and stored at a temperature of 4° C. till an opportunity arose for its use (about two months).

On May 31, 1942, varicella developed in a child of 6 years in one of the children's wards in this hospital. Of the other 19 children in the ward, 6 had a previous history of varicella. Of the 13 who had not previously had varicella, 7 were given an

intramuscular injection of 20 c.cm. of convalescent herpes zoster serum on the day after the case arose; the other 6 were used as controls. (Case D. R., with no previous history of varicella, was admitted to the ward in error on June 21. He was given 20 c.cm. of the serum intramuscularly next day.) The results of the experiment are set out in the Table.

Table of Results

Original Case	Age (Years)	Date Serum Given	Date of Varicella	No. of Vesicles
A. O.	6	—	31.5.42	59
<i>Previous history of varicella—no serum given:</i>				
V. C.	4	—	15.6.42	56
K. E.	3	—	16.6.42	80
H. P.	3	—	—	—
M. C.	2	—	—	—
V. H.	2½	—	—	—
S. T.	6	—	—	—
<i>No previous history of varicella—no serum given:</i>				
J. A.	1½	—	23.6.42	(No count)
L. C.	2	—	12.6.42	108
R. H.	6	—	—	—
A. C.	5½	—	15.6.42	63
M. W.	2	—	19.6.42	106
L. W.	3	—	—	—
<i>No previous history of varicella—serum given:</i>				
J. Y.	3	1.6.42	20.6.42	9
P. M.	1½	1.6.42	—	—
J. C.	4½	1.6.42	—	—
D. L.	2	1.6.42	—	—
V. W.	5½	1.6.42	—	—
C. E.	2	1.6.42	—	—
I. M.	1	1.6.42	—	—
D. R.	3	22.6.42	—	—

All the children (except one, J. A.) who subsequently developed varicella were photographed after cropping had ceased, the lesions having been painted with gentian violet to improve visibility. The lesions (except scalp lesions) were counted and the numbers are shown in the Table. It is interesting that the one child (J. Y.) who had no previous history of varicella, and was given serum and developed the disease, was only very mildly affected.

I wish to thank the Medical Director for permission to publish this account.

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Two Cases of Subcutaneous Rupture of Jejunum: Recovery

The following case records are thought to be interesting enough to merit publication.

CASE I

A girl aged 11 was knocked down on the evening of March 30, 1940, by a barrow, the handle of which had been thrust against the abdominal wall in front. She complained of abdominal pain, which had come on immediately; afterwards she had vomited. When seen the next day the abdomen moved poorly on respiration, and both recti were rigid, with tenderness especially in the lower halves. The child was conscious and did not seem to be suffering from shock. The pulse was rather rapid (120) and slightly irregular, the temperature normal, and respiration 24. Nothing unusual was found in the urine.

On the evidence of the history and the clinical signs operation was decided on without further delay—24 hours after the accident. It was performed under general anaesthesia consisting of gas-and-oxygen and minimal ether (Dr. P. Singer). There was some turbid fluid but no free blood in the peritoneal cavity. A transverse tear involving half the circumference of the gut was found in the jejunum 10 in. distant from the ligament of Treitz; the neighbouring peritoneum was soiled with flaky exudate indicative of incipient peritonitis. The rent was sutured, and small abrasions situated lower down in the small intestine, together with one on the wall of the transverse colon, were peritonized. The abdominal wall was then closed and a suprapubic drain inserted. There was pyrexia of 101 to 102° for 6 days after the operation; the pulse was rapid (150) for 5 days, and then gradually subsided. Both wounds discharged for a time and there was some post-operative bronchitis. An appropriate dose of soluseptasine was given intramuscularly at operation and repeated in two hours; this was followed by a course of 'sulphanilamide' rectally and by mouth. Graduated feeding by the mouth replaced rectal salines as the condition improved, and was well tolerated. No abdominal distension occurred, and 8 days after operation the child was taking light diet well.

CASE II

On Dec. 28, 1943, a man aged 22, while attending to a "shaping" machine, was caught between the iron plate and the machine by a double impact which hit him in the back. After the blow he suffered intense abdominal pain, central in position, constant but eased by "stretching" out. There was no vomiting and the spine and skin over the back (where he was hit) appeared normal. After the accident he walked 30 yards to a shelter; at no time did he lose consciousness. During conveyance to hospital by ambulance he noticed pain in the left shoulder for the first time. On admission he

was obviously distressed and in pain, but was only slightly shocked; his face was a little cyanosed and respiration was laboured. There was generalized abdominal rigidity on examination, with maximum tenderness in the left upper quadrant of the abdomen: in this area the skin was marked by superficial abrasions. The pulse was 64, temperature 97.8°, respiration 20, and blood pressure 120/80. The urine was clear. The diagnosis seemed to rest between ruptured intestine and ruptured spleen.

The abdomen was opened by a left upper paramedian incision, 2½ hours after the accident, under general anaesthesia, using cyclopropane, gas, and oxygen through an endotracheal tube by the closed-circuit technique (Dr. D. M. Carr). When the peritoneum was incised free blood issued from the peritoneal cavity. The spleen was palpated and found to be unharmed. The intestine was then searched, starting from above, and at a point 12 in. from the duodeno-jejunal flexure the jejunum was seen to be completely torn across, its edges contused, somewhat swollen, and everted. The lumen appeared empty, and except for blood in the neighbourhood there was little soiling of the peritoneum. The mesentery was only slightly torn and the vessels were scarcely harmed (see Fig.).

The open ends of the gut were ligated and invaginated, and a lateral anastomosis was then performed. The mesentery came together well, and was left unsutured. Sulphacetamide (albicid) was applied to the suture line and the abdomen was closed without drainage. Anaesthesia was smooth, and the patient's condition was satisfactory throughout: consciousness was regained before leaving the operating-room. Post-operative intravenous serum and glucose-saline were given. Stomach suction was maintained for 60 hours, but feeding by mouth began on the second day—first clear fluids, then opaque fluids (fifth day), and on the eighth soft solids. The pulse, though of good volume, remained around 130/140 for two days, dropped to 100 in the next two days, and then returned to normal. The wound healed well. There were no chest or other complications.

COMMENT

As a rule this injury is said to be the result of a sharp impact, crushing the intestine against the vertebral column, before the abdominal muscles have time to be on guard. In the first case this may be the explanation, but in the second the force seems to have been applied to the back from behind.

In view of the high mortality rate associated with cases of 12 hours' duration—stated to be as high as 70%—the child, who was not operated on until 24 hours afterwards, may be regarded as having made a fortunate recovery.

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A Technique for Episiotomy

In the comparatively rare instance in which this little operation is indicated the following method has been found useful: When the vulva is stretched by the presenting part a director is passed to lift the rim slightly away from the advancing parts and stitches are then quickly passed, encircling the proposed line of incision (see diagram). Anchor the free ends lightly with artery forceps; draw the looped ends from under the edge of the vulva and anchor with a second pair of artery forceps. As the presenting part crowns (and a perineal tear is seen to be inevitable), draw the looped ends upwards, slightly retracting the edge of the vulva, and make a scissors cut between the loops (see diagram). After the birth and cleansing of the vulva, the wound edges are readily approximated by tying off the stitches. Further stitches can be inserted if necessary. This technique permits of an accurate approximation of the wound edges, and there is no need to give chloroform after the birth to relieve the pain of stitching up. For the sake of clarity the incision shown in the diagram is a lateral one.

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