extent, and the "striation sign" that enough has been injected at any particular spot does not occur. One is reduced to guess at the correct amount. I have usually injected 2 to 3 c.cm. at each puncture. The aim is to inject all round the rectal wall. After two or three treatments, if one feels the rectum from the vagina, the whole bowel feels hard, and the sensation closely resembles that produced by an annular carcinoma of the rectum when felt from the vagina. All this thickening disappears some three or four weeks after the completion of the treatment. This inflammatory process results in close adhesion of the mucous and submucous coats to each other and to the muscular coat. This in itself prevents the bowel wall from prolapsing, and, moreover, the submucous space being more or less obliterated, the main haemorrhoidal vessels which feed the piles are compressed and the haemorrhoids are cured in that way.

This method of treating true prolapse, like the submucous injection of haemorrhoids, was first carried out in the United States. Considering how unsatisfactory the treatment of this condition by operation has proved, I hope that others will give their patients the option at least of trying injections before resorting to more drastic operations, with their discomforts, dangers, and uncertainties.

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ADDISON'S DISEASE DUE TO MALIGNANT INVOLVEMENT OF THE SOLAR PLEXUS

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It is generally stated in textbooks that one of the rarer causes of Addison's disease is the involvement of the solar plexus and semilunar ganglia by malignant growth. Rolleston¹ says:

"There are cases in which symptoms like those met with in Addison's disease are found in association with alteration of the semilunar ganglia or abdominal sympathetic, the suprarenals appearing healthy. Thus the solar plexus and semilunar ganglia have been surrounded by lymphadenomatous growth, whilst the suprarenals were found to be intact."

However, very few such cases have been recorded in the literature. Addison's tenth case was probably of this nature, but after the collection made by Lewin,² who found healthy suprarenal glands in 12 per cent. of cases reported in the literature up to 1892, I have not been able to find such a case. Rowntree and Snell,³ after reviewing the work of the Italian clinicians Pende and Varvaro,⁴ state: "One may infer that there is a possibility of functional suprarenal insufficiency depending on interference with secretory nerves to the gland; however, we have not observed such a case in our series." Neither was any such case reported by Conybeare and Millis.⁵

The following case, besides the fact that the symptoms were presumably due to involvement of the solar plexus, and not the capsule, by malignant growth, is also of interest as regards the darkening of the hair and the high blood sugar.

Sir W. Wilkes⁶ stated that only one or two cases were recorded where the hair had darkened in Addison's disease, and though it is stated³ that "the hair often becomes darker," this is not a symptom which I have found recorded in any individual case. The fasting blood sugar is usually low or well within normal limits^{7, 8}; not, as in our case, as high as 0.137 per cent.

Case Record

The patient, a man of 50, was first seen at the end of August, 1933. His family history was entirely uninteresting, and his own past history was uneventful. He only remembered having measles, and becoming very freckled as a child in the summer. During the war he served in France, and since then had been a caretaker.

History.—Some time in 1930 he began to get epigastric pain after his meals: this pain was relieved by alkalis, and did not seriously worry him, although it never completely disappeared. In April, 1933, he noticed that he was more sunburnt than usual, and at the same time his abdominal pains became more severe and different in character. He got steadily worse until the end of August. His face, hands, and forearms grew progressively darker in colour; his body as a whole did not become pigmented, save to a slight degree over his abdomen. The whites of his eyes and carunculae he noticed remained normal. His nipples and genitalia became a deep black. His hair and moustache, which had been turning grey, became much darker, "as if he were becoming younger." There also appeared small discrete dark spots over his trunk and arms. Periodically the pigment grew much more intense, and then lighter again, so that "his face was copper-coloured, or like a negro." These sudden increases in pigmentation were always associated with severe abdominal pains, lasting about half an hour, relieved by bringing up wind, and not related to food or exercise. He also became progressively weaker, so that by August he had to stay in bed. He quite lost his sense of taste and smell—chicken, fish, and bread all tasting the same—while everything appeared to have an earthy smell.

Progress.—In September he began to feel much better. He was becoming almost normal in colour, his abdominal pains were less, and he felt he could work. An x-ray, taken at this time, showed a small lesser-curve ulcer. He returned to work for a week, but had to stop, as he began to have severe pains and vomiting. The pain became much less, but the vomiting continued, generally preceded by nausea, but leaving him feeling quite well afterwards. It had no relation to his meals. Late in November he was admitted to hospital.

Examination.—He was well covered, in spite of having lost 2 st. in the last six months. His skin was of a uniform dark yellow-brown, with darker discrete spots. The palms of the hands were pale, with the creases dark brown. The nails were normal. Pigment began sharply at the wrist. His hair was a mixture of black and grey. His moustache and axillary hair were dark brown. He stated that originally his moustache had been grey. There was a dark line on the buccal mucosa opposite the crowns of the teeth. Pigmentation was most intense over the arms, face, and genitalia. A biopsy on a piece of his pigmented skin showed no free iron. His cardiovascular system was normal. His blood pressure was 144/98 mm. Hg on admission, falling to 96/57 mm. two weeks before his death. His blood count was 3,760,000 red cells, with a colour index of 0.5; 13,000 white cells, 87 per cent. polymorphs, 10 per cent. lymphocytes, 3 per cent. large hyalines. In the epigastrium a mass of indefinite outlines could be palpated: it was thought to be a gastric carcinoma. His gastric juice contained blood, and no free HCl until after an injection of histamine, when 0.168 per cent. of free HCl was present. The faeces contained large quantities of occult blood. The x-ray of his stomach suggested a neoplasm. An x-ray of the suprarenal areas was negative. Clinically and by x rays his chest was normal; his nervous system and urine were normal; the blood urea was 42 mg. per 100 c.cm., and the Wassermann reaction was negative. Fasting blood sugar was 0.137 per cent. While in hospital the patient's condition steadily deteriorated.

Asthenia was pronounced from the date of admission, and became so marked that he could scarcely move or speak. Vomiting was incessant. He died on December 30th, 1933.

Post-mortem Findings.—I am indebted to Dr. J. L. Edwards for the following report on the necropsy. The patient showed emaciation and extreme pigmentation of a brownish type, mainly of exposed parts. The adrenals appeared normal. There was no evidence of malignancy, tuberculosis, or atrophy, but a large mass of carcinomatous glands pressed directly on to the coeliac plexus. The brain appeared normal.

The lungs showed confluent bronchopneumonia, with recent pleurisy on each side. The stomach showed a large ulcer, about 2 in. in diameter, immediately on the stomach side of the pylorus, which was clearly malignant, with large masses of secondary glands and many secondaries over the whole abdomen. The liver and spleen showed no secondary deposits. The kidneys appeared normal for the age. The heart showed slight ventricular hypertrophy. The parotid on the left side showed suppurative parotitis.

I wish to express my thanks to Sir Maurice Cassidy for permission to report this case.

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Clinical Memoranda

VARICELLA COMPLICATED BY TETANISM

During recent years attention has been drawn by P. Bérode,¹ J. Hallé,² F. M. Fry,³ P. Mühlkamp,⁴ Laignel-Lavastine,⁵ and other investigators to the occasional incidence of nervous symptoms as complications of chicken-pox. As a rule, however, the disease runs so mild a course that even practitioners with experience of numerous epidemics have never encountered manifestations of this character. For that reason alone I feel that the following case is worthy of description.

The patient, a boy aged 4½, was brought to my surgery on April 14th, 1934. Chicken-pox was then epidemic in this area, and, after inspecting the typical eruption which the child exhibited, my colleague had no difficulty in reaching a diagnosis. On the following evening I was sent for urgently, because the patient had "gone stiff all over." To my surprise I found him lying with his back arched over a pillow, which was being supported by his anxious parents. The muscles of the neck, spine, and limbs were in a state of tonic spasm, and the whole posture was as truly opisthotonic as that encountered in tetanus or strychnine poisoning.

When lifted he remained as rigid as a board, and when set upon his heels he was able to stand with the spine hyper-extended. Without encouragement he even walked a few steps in a shuffling spastic fashion. During temporary relaxation of the spasm I found that his knee-jerks were equally increased, and that there was a bilateral knee- and ankle-clonus. In addition, he exhibited marked trismus, and the angles of his mouth were drawn down. There was no elevation of the eyebrows, however, to complete the picture of a risus sardonicus.

The child was perfectly rational, he was not unduly alarmed by his condition, and no aggravation of symptoms followed my examination.

On the third day of the illness lumbar puncture was performed, and although a manometer was not used, increased tension was obvious from the spouting of the cerebro-spinal fluid. The specimen was examined under the auspices of the Welsh National Memorial Association; it was sterile, and no abnormalities were detected. On the seventh day of the illness, as little or no improvement had occurred, lumbar puncture was repeated, and the fluid was still found to be under pressure. Twenty thousand units of antitetanic serum were administered intrathecally. Again laboratory investigation gave no hint as to any causative factor. On the ninth day of illness fluid was once more withdrawn and a further injection of antitetanic serum made.

On the eleventh day the pressure of the cerebro-spinal fluid was distinctly lessened, and in view of the following report which had been obtained no serum was administered: "Clear colourless fluid, in which nine cells per cubic millimetre were counted. Seven of these were lymphocytes and the remainder monocytes. On centrifuging the fluid yields

a very small, granular sediment, films from which show a few lymphocytes and occasional monocytes. By Ziehl no acid-alcohol-fast bacilli were seen. Globulin and sugar content were normal. The slight increase of cells may possibly be due to meningeal irritation as the result of serum therapy."

On the tenth day of illness smoky urine was voided, and haematuria gradually increased until the urine was blood red. This symptom had disappeared entirely by the fourteenth day. Muscular spasm commenced to diminish on the twelfth day, and from then onwards recovery was rapid.

Throughout the illness there was a complete absence of oculomotor disturbances and of changes in the fundi. The child did not vomit or suffer from constipation. At the present time he is in normal health and, mentally, as alert as before his illness.

This case is no exception to what appears to be the general rule in such complications of varicella—that in spite of the alarming initial features complete recovery almost invariably occurs. It differs from the bulk of those already described in that the symptoms were essentially tetanic rather than meningitic or encephalitic.

Neath.

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CONCURRENT EXTRAUTERINE AND INTRA-UTERINE GESTATION

The following case is considered worthy of record because of its rarity.

A woman, aged 30, was admitted under my care to the General Hospital, Barbados, on April 15th, 1934. She complained of great swelling of the lower extremities and said that she was nearly five months pregnant. She had had one child eight years ago, otherwise her history was negative. On examination she was found to be rather pale, and greatly swollen from the pelvic girdle downward. Blood pressure, 145 systolic, 95 diastolic; temperature, 99.6° F.; pulse, 100; respirations, 20. The heart was normal. The urine was clear, and contained a mere trace of albumin.

The abdomen was about the size of a seven months pregnancy, hard and lobulated. Examination per vaginam showed a smooth, painless tumour filling the pouch of Douglas and extending down to within two inches of the vulva. The cervix could not be felt either per vaginam or per rectum. Bimanually two tumours could be felt in the abdomen, one in the midline up to the umbilicus and the other in the left upper quadrant of the abdomen.

At laparotomy, on April 18th, the bladder bulged into the wound as high up as an inch below the umbilicus, and was adherent to the anterior abdominal wall. A catheter was passed with some difficulty, and 60 oz. of foul-smelling ammoniacal urine was drawn off from two large loculi in the bladder.

The uterus was found lying below the spleen, freely mobile, about eighteen weeks pregnant, and perched upon a large pelvic haematocoele, which filled the pelvis and contained a foetus of about eighteen weeks' gestation, complete with umbilical cord and placenta. This foetus had been aborted through the fimbriated end of the right tube. The haematocoele and foetus, etc., were removed, together with the right tube and ovary, and the abdomen closed. The patient is making an uninterrupted recovery.

The points of interest appear to be: (1) Failure of repeated catheterization with a metal catheter to empty a bladder which was chronically distended and loculated. (2) The practically normal character of the urine passed naturally or obtained by a catheter before operation. (3) The extreme degree of swelling of the lower extremities due to pressure on the pelvic veins. (4) The rare association of intrauterine and extrauterine pregnancies of approximately the same period of gestation.

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