always first on the face, it followed in a few hours on the arms and legs, with a few spots on the back; the chest and abdomen were nearly free, in many mild cases absolutely free, the picture so formed being very striking in its contrast to varicella; on the limbs the rash was always centrifugal. There was no succession of crops as in varicella, all the spots in a given part of the body being of the same age. The individual spots were in the deeper layers of the skin as opposed to the superficial vesicles of varicella, and passed through the classical stages on the face in about ten days; in the limbs much longer was required, unbroken pustules being often present after the face was clear; the last to clear up were always round the ankles and on the soles of the feet. A few of the largest spots were punctured and found to be unilocular; umbilication was frequent but not universal. So uniform was the rash in its essential features as regards both its nature and distribution that the diagnosis rarely gave any anxiety once the rash was well out.

Secondary rise of temperature occurred in all but one of the semiconfluent cases and in 10 of the mild cases—twenty-three times in all. It was invariably septic in type, and while it lasted patients always felt worse than during the early days of the rash, though usually not so ill as in the prodromal period. It commenced on the third or fourth day of the rash and lasted for one day only in 7 cases, for two days in 4 cases, for three days in 2 cases, for four days in 7 cases, and for five, six, and nine days in one case each. In only 10 cases did it exceed 100°, the highest recorded being 101.6°.

Conjunctivitis occurred during pustulation in 6 cases and appeared to be caused by pustules on the eyelids; arthritis of the knee occurred once during convalescence, in a man of 55 not previously subject to "rheumatism." There were no other complications; one case each of imperfectly compensated mitral disease and of six months' pregnancy were unaffected, both being cases of "mild" type.

Treatment was symptomatic only. From the period of scabbing onwards all patients were liberally treated with olive oil and hot baths; the nursing staff as well as the author were convinced that this materially shortened convalescence.

Duration of Infectivity.—After the scab had fallen off a purple scar remained, at first slightly raised; around its edge was often attached some dry skin, the remaining circumferential part of the skin originally covering the vesicle. Until this had disappeared from all the spots the patient was regarded as still infectious. The last part to clear was invariably the ankles and soles of the feet, and the process was completed within three weeks of the appearance of the rash in 23 cases; in 20 cases infection persisted to the fourth week, in 3 cases to the fifth, in 3 cases to the sixth, and once to the seventh week. Liberal applications of olive oil and hot baths materially assisted the removal of this dry skin; premature picking off of the scabs, on the other hand, delayed the process. The patients were discharged immediately at the end of this period and there were no "return cases"; the scars faded gradually in the course of several weeks after discharge and do not appear to have left any pitting.

Conclusions.

1. It is impossible to diagnose the present type of small-pox before the appearance of the rash.
2. Fall of temperature without appearance of rash in a suspected case does not immediately preclude the possibility of small-pox; nor does the non-appearance of rash on the fourth day.
3. The centrifugal distribution of the rash and its comparative absence on the chest, its depth in the skin, and the absence of successive crops are reliable guides in the differentiation from chicken-pox.
4. Successful vaccination performed after the disease has appeared excludes small-pox, but successful vaccination during the incubation period has no diagnostic value.
5. The protective value of recent vaccination is once more abundantly confirmed.

TWO CASES OF INTRA-ABDOMINAL HERNIA.

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I.—HERNIA INTO THE INTERSIGMOID FOSSA.

THE intersigmoid fossa has been described by Treitz,¹ Waldeyer,² and Treves³; the mechanism of its formation, suggested by Toldt,⁴ was confirmed by Moynihan.⁵ Records of hernia into the fossa are very rare. Bryant,⁶ Eve,⁷ Eccles,⁸ Coley,⁹ Murphy,¹⁰ Barnard,¹¹ Black,¹² and Marsh¹³ relate or refer to cases, but, in some of these, particulars are wanting. There are no doubt others, overlooked, but the references have not been verified. Most of the cases were seen as "intestinal obstruction," without previous history of abdominal disorder; in one or two there was a history of attacks of constipation with left-sided abdominal pain.

The patient, aged 47, a man of fine physique, at the end of a journey from the Continent, was seized with sudden abdominal pain, at first in the right iliac region; later it spread across the whole lower abdomen, and he vomited. A few hours later he was seen by Dr. Cumming Grant, who found him collapsed. He had had an urgent desire for stool, which persisted although the bowels did not act, nor was flatus passed. At first he had micturated easily, but now had difficulty and pain. Vomiting recurred.

When seen by us the whole abdomen was distended, rigid, and tender, the greatest tenderness being in the left iliac fossa; there was no recognizable hyperaesthesia, nor could any "lump" be felt; the whole abdomen was slightly tympanitic. On rectal examination oedema of the mucosa was found high up and general fullness of the recto-vesical pouch, but no "lump" could be felt.

The patient himself, although he had had no previous attack, felt sure he was suffering from appendicitis. Without dismissing that possibility, the abdomen was opened as for intestinal obstruction. On entering the pelvis the hand at once encountered an indefinite fixed fullness on the left posterior wall. Coils of small intestine of unequal calibre were seen passing towards this region, but not until the sigmoid had been drawn up and over to the right was the mass revealed. It proved to be incarcerated small gut behind or between the layers of the sigmoid mesocolon. The whole sigmoid and upper part of the rectum were markedly oedematous. The opening looked downwards and to the right. The intestine, 8 to 10 inches, was easily withdrawn and was clearly viable. The pouch admitted three fingers to their whole extent, and was directed upwards and to the left. The margin of the opening was rounded though oedematous, and the sigmoid artery, arching in the upper edge, coursed down the left rim. The ureter was not identified; the bifurcation of the iliac was below and slightly to the right. It was thought inadvisable to attempt any suturing of the opening; the sigmoid was turned down and its outer edge stitched to the abdominal wall as far down and to the left as possible.

Recovery was without incident.

Intersigmoid Fossa. A, Approximate outline of sac behind descending mesocolon. B, Sigmoid branches. C, Mouth of pouch as distended by incarcerated gut. D, Superior haemorrhoidal artery. E, Approximate position of ureter.

II.—HERNIA THROUGH A DEFECT IN THE MESENTERY.

The anatomy of the aperture in the following case corresponds exactly with the description given by Treves.¹⁴ Possibly the type may not be very rare, but records are certainly scarce. Howard Marsh¹⁵ described one in 1888, and Barnard¹⁶ mentions two, but both of them were traumatic. This case differed entirely from the two of deficiency of the last part of the mesentery recorded by Armstrong,¹⁷ in that the terminal part of the ileum was quite free from attachment to the abdominal wall. There was no history of trauma in this instance. It seems probable that the attacks of pain were due to incarceration of a loop of gut.

A single woman, aged 31, one of twins, a patient of Dr. Garden, was admitted to the Westminster Hospital in May, 1923, having had attacks of "appendicitis." The first attack, in February, 1923, was

accompanied by abdominal pain, a dull aching across the belly above the umbilicus, shooting down into the right iliac fossa and right loin. There was nausea but no vomiting. Micturition was

Mesenteric Defect. A, Ileo-colic artery.
B, Branches of superior mesenteric.
C, Edge of gap held widely open.
D, "Free" part of ileum.

in the right iliac region, tenderness over the caecum on deep palpation and high up on the right wall of the rectum; there was slight but definite hyperaesthesia in the right lower quadrant of the abdominal wall. The temperature was 98.6°, pulse 90.

normal; the attack lasted twenty-four hours. There were recurrent attacks in March and April; the former lasted two days; in the latter, which coincided with the onset of a menstrual period, the pain was very severe, and continued intermittently until admission on May 19th. The diagnosis was "appendicitis." The patient was said to have suffered from "gastric ulceration" in 1913 and "gastric influenza" in 1921.

Examination on admission disclosed nothing beyond rigidity

At operation the appendix was found, 5 inches long, with a definite kink; the superficial vessels were injected, but there were no adhesions. On further examination a defect was found in the mesentery of the terminal part of the ileum. The slit-like aperture was about 5 inches long; the edges could be freely separated, and then allowed passage to all the fingers and palm; the margins were firm, smooth, slightly thickened, and opaque. Surrounding the defect was an arcade between the ileo-colic artery and a terminal branch of the superior mesenteric. A loop of small intestine, 6 to 8 inches long, passed with its mesentery through the opening; it was withdrawn with but little difficulty. There were no signs of previous inflammation in the region. The margins of the aperture were approximated by a continuous suture. Recovery was without incident.

REFERENCES.

- 1 Treitz: *Hernia Retro-Peritonealis*, Prague, 1857.
- 2 Waldeyer: *Virchow's Archiv*, vol. 60, 1874, p. 66.
- 3 Treves: *Hunterian Lectures*, 1885.
- 4 Toldt: *Denkschr. d. K. Akad. d. Wissensch. z. Wien*, vol. 41, 1879; vol. 56, 1889.
- 5 Moynihan: *On Retro-peritoneal Hernia*, 1906.
- 6 Bryant: *BRITISH MEDICAL JOURNAL*, 1884, ii, p. 1003.
- 7 Eve: *Ibid.*, 1885, i, p. 1195.
- 8 Eccles: *St. Bartholomew's Hosp. Rep.*, vol. 31, p. 177.
- 9 Coley: *Trans. Amer. Surg. Assoc.*, 27, 445, 1909; *Annals of Surg.*, July, 1909.
- 10 Murphy: *Clinics*, vol. 3, 1914, p. 617.
- 11 Barnard: *Contributions to Abdominal Surgery*, 1910, p. 210.
- 12 Black, *Surg., Gyn., and Obstet.*, vol. 21, 527, 1915.
- 13 Marsh: *BRITISH MEDICAL JOURNAL*, 1912, i, p. 1364.
- 14 Treves: *Op. cit.*
- 15 Marsh: *BRITISH MEDICAL JOURNAL*, 1888, i, p. 1157.
- 16 Barnard: *Op. cit.*, p. 208.
- 17 Armstrong: *Brit. Journ. Surg.*, vol. 9, 1921-22, p. 287.

British Medical Association.

PROCEEDINGS OF SECTIONS AT THE ANNUAL MEETING, 1923.

SECTION OF NEUROLOGY AND PSYCHOLOGICAL MEDICINE.

HENRY DEVINE, O.B.E., M.D., F.R.C.P., President.

DISCUSSION ON THE SEQUELAE OF LETHARGIC ENCEPHALITIS.

OPENING PAPER

BY

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ALTHOUGH only about five years have elapsed since lethargic encephalitis was first recognized in this country, we have become so familiar with the ravages caused by this disease that the consideration of its sequelae can hardly fail to prove interesting and instructive. In opening this discussion it is perhaps desirable to define as far as possible the meaning of the term "sequelae" as applied to encephalitis. This in itself is no easy task because the active phase of the disease has little uniformity in regard to its features, its severity, or its length. It is often difficult, therefore, to separate the primary results of the inflammatory process from signs and symptoms which appear at a time when the inflammation of the cerebral tissues may be presumed to have died away.

For the purpose of this discussion it may be convenient to regard as sequelae (1) those disorders of function which appear for the first time after the disease has spent itself, and (2) progressive alterations in defects of function which have been left as more or less permanent legacies of the disease. A good example of the first category is epilepsy and of the second is the progressive intensification of the Parkinsonian syndrome already inaugurated during the acute phase. The acceptance of these two classes of sequelae can be justified on the plea that the pathological process underlying either is sufficiently obscure to warrant our closest inspection.

The interest of our discussion is likely to lie in three directions. In the first place we shall be glad to learn from one another of the varieties of sequelae which have been met with, their relative frequency and their relationship to the features of the primary disease. Further light on this subject would be invaluable in regard to the question of prognosis. In the second place we can exchange views as

to the nature of the changes in the cerebro-spinal system responsible for those defects of function which we include in our definition of "sequelae." This is a pathological problem of fundamental importance. Finally, we shall welcome the opportunity of acquiring any information which may be available in respect to the prevention or cure of these distressing disabilities.

It is more than probable that our list of sequelae, already long, will be added to from time to time, seeing that every function of the central nervous system may be affected by the disease. I shall be content to draw your attention to those phenomena which are common and to those which may have some special interest.

Mental Sequelae.

When the relatives of a patient suffering from encephalitis are told that his brain is inflamed their first concern is the mental state of the victim in the event of his surviving the disease. An answer to this question must always be carefully guarded, as experience has taught us that encephalitis may leave in its train many defects of function on the part of the higher centres varying greatly both in regard to severity and duration. From a practical point of view it is well to warn relatives, and often the patient himself during convalescence, that, however slight and transient the active phase of this disease, it is apt to leave the nervous system very much below par for many months and sometimes for years.

In simple cases the patient may complain only of those symptoms which we associate with the term "nervous exhaustion" and which include lack of energy, of concentration and decision, depression, restlessness, and insomnia. Unless the warning note is sounded children are sent back to school and adults return to business long before they are fit for work, and sometimes with disastrous results. Knowing what we do of the pathology of the disease, it is folly to expect such a delicate piece of machinery as the human brain to recover its normal functions unless it is given ample time for rest and recreation.

Fortunately mental changes are not more severe than this in the majority of cases. But there are other patients in whom the disease initiates a complete alteration of mental capacity or a revolutionary change in behaviour and adaptation.

A woman developed an acute attack of delusional insanity lasting for a fortnight about two months after recovering from encephalitis. Another woman displayed for many months a mental attitude which was quite at variance with her normal personality. She was boastful, conceited, lacking in reserve, and loquacious. Curiously enough she recognized and deplored her tendencies, although unable to control them. Perhaps the most common and most tragic cases of mental deterioration are seen amongst children.