Clinical Notes :

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF SPRUE ASSOCIATED WITH TETANY.

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THE onset of tetany in association with diseases of the digestive system has been not infrequently noted, but it has not before been recorded in a case of sprue.

The patient, a male, aged 45, contracted the disease on the China Station in 1911-13, probably at Shanghai. He had suffered from many relapses of diarrhoea and sore tongue, but more frequently during the past two years. In July, 1918, he was admitted to the Royal Naval Hospital, Plymouth, for chronic colitis, and the disease was then diagnosed as sprue, the stools being pale, bulky, and fermenting. He was extremely emaciated and debilitated, and weighed 84 lb. On Sept. 19th, 1918, he came under my charge at the Dreadnought Hospital, Greenwich. The condition then was that of a typical case of sprue in its last stage. The temperature was subnormal, pulse 74, respirations 24, and his mental condition was clouded, but he was generally very cheerful. There was intense emaciation, dry skin with increased pigmentation around nipples, scrotum, face, and axillae. The conjunctivae were pearly white, tongue was dry and glazed but no ulceration was present; the abdomen was distended, peristalsis very active and easily stimulated. The stools were semi-solid, pale yellow, abundant, offensive, but not fermenting. The urine showed a trace of albumin. No oedema, petechiae, or sores. The systolic blood pressure was 95 mm., and the pulse of low tension. Examination of the blood showed red cells, 1,480,000, and white cells 3200; polymorphs, 61; lymphocytes, 34; mononuclears, 3; and transitionals, 2 per cent. The blood picture was that of a severe secondary anaemia without nucleated red cells.

Under treatment the patient showed signs of improvement, but on Sept. 23rd he complained of slight cramps in right hand and wrist. These were relieved by warmth. On the morning of the 24th he felt well but for the cramps, and passed a large fermenting stool; at mid-day definite tetany set in, chronic spasm of right hand fingers, wrist, and forearm. The deep reflexes were lost, but the muscles reacted. The condition rapidly became worse, with collapse, intense pain, and sweats, the spasm spreading up the arm and across the chest, with a marked trismus, typical risus sardonicus, and the right leg was slightly affected. The bowels acted involuntarily. Oxygen was administered, an ether injection given subcutaneously, and also a turpentine enema. At 2.30 P.M. the trismus had passed off and he felt much better, but the hand was still clenched. At 3 P.M. he was taking food and felt more comfortable, but was very weak. Calomel was given with Dover's powder, and he was ordered a course of thyroid extract.

There was no return of the tetany, but the general condition did not improve, and on Oct. 3rd slight pyrexia with pulmonary symptoms came on. He died on the 7th quite quietly in the night from heart failure, apparently free from pain.

Post-mortem showed a complete absence of fat in the tissues. The heart (5 oz.) was very small and superficial white patches were present. The intestines contained much soft faecal material; no ulceration was found anywhere, but the walls were very thin, especially those of the lower part of the jejunum and ileum. The mesenteric glands were enlarged. The spleen was small and free from adhesions and weighed 1½ oz. The liver appeared normal, weighing 3 lb. The kidneys were both large, pale, and weighed 4-5 oz. The pancreas appeared normal, and the thyroid was atrophied. The left pleura was adherent throughout and both lungs showed intense oedema, most marked at the bases.

A microscopical examination of the organs was made. The liver showed a slight amount of interlobular cirrhosis. In the kidneys there was some evidence of chronic tubular nephritis, but no infarcts or haemorrhages. The lungs showed haemorrhagic and catarrhal infiltration of localised areas. The pancreas appeared to be normal. Sections of the small intestines showed atrophy of the villi with a small-celled infiltration in the submucosa, and in this layer were a number of stout, oval, and slightly curved, rather large Gram-positive bacilli, but no evidence of yeast-like cells could be found.

The chief interest in the case lies in the severe attack of tetany which came on late in the disease from no apparent cause other than some intestinal irritation; its unilateral character as far as the limbs were concerned, and the severe bilateral trismus; the extreme emaciation of the patient,

making the contracted muscles stand out more prominently even than usual. The rapid action of the subcutaneous injection of ether in relieving the spasm is noteworthy.

PERITONSILLAR ABSCESS FOLLOWED BY OSTEOMYELITIS, NECROSING ENCEPHALITIS, AND MENINGITIS.

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With Report on Pathology by WYATT WINGRAVE, M.D. Durh.

FROM the comparatively trivial degree of its early symptoms, the regrettable delay in evacuating pus, and the extensive lesions revealed by necropsy, this case is of the deepest interest. It is instructive to note the extensive destruction of bone, and that the patient should have suffered so little pain or even discomfort. She continued her work until eight days before death. The thrombosis of the jugular bulb evidently prevented pulmonary sepsis. An early diagnosis of the peritonsillar abscess 16 days before the patient attended hospital, with a free incision and evacuation, would have obviated the serious and fatal complication. The notes of the case are as follows.

Mrs. A. B., age 48, was in good health until April 29th, when she had an attack of tonsillitis and a peritonsillar abscess on the right side; no treatment except a gargle. On May 4th swelling of the left eyeball, slight pain in the throat and back of head; but she did not consult anyone, and continued her daily work. On May 15th the swelling of the left eyeball became worse, and she went to the Western Ophthalmic Hospital. Mr. George Thompson sent her to my clinic, and she was admitted as an in-patient at once.

On admission the patient had pain in the back of the head, neck, and in the cervical region; her speech was not clear. There was a prominence of the left eyeball with ptosis, slight injection in the outer canthus, a dry tongue, and temperature 102° F. No pain over the frontal sinus. Fluctuation was found in the faucial arch due to a peritonsillar abscess of 16 days' duration, which had not been opened or spontaneously evacuated. This abscess was at once freely incised, a large amount of foul pus evacuated, and 25 c.cm. antistreptococcal serum was given.

On May 17th pus was still escaping from the incision. Patient somewhat drowsy, both eyeballs prominent, the movement of the right one limited. Temperature 104°. Pulse 110. 25 c.cm. antistreptococcal serum injected; an intravenous injection of 1 in 1000 solution of perchloride of mercury given a few hours later. On May 18th patient drowsy, restless, sleepless. Both eyeballs swollen and prominent. Two doses of antistreptococcal serum injected. Temperature 104°. Pulse 116. Slight rigor. Abscess explored to ensure thorough drainage. On May 19th patient unconscious. Thick foetid pus still escaping from the abscess cavity. Temperature 102°. Pulse 100. On May 20th patient unconscious, both eyes prominent and fixed. No reaction to light. The house surgeon, Dr. George Lean, reported that ophthalmoscopic examination revealed "choked disc" in the right eye with thrombosis of veins and small haemorrhages. Temperature 102°. Pulse 120. Severe rigor. On May 21st condition much the same. Temperature 102°. Pulse 126. Patient died on May 23rd.

Report of Necropsy by Dr. WYATT WINGRAVE.

On removing the tongue, larynx, and pharynx a sloughing space was found laterally about the level of the soft palate, which travelled backwards in the deep cervical fascia to the prevertebral area. Following the track upward a large packet of green pus was evacuated and traced in the prevertebral muscles to the basi-occipital and basi-sphenoidal bones. Only a thin shell of these remained, their cancellous elements being reduced to a soft green foetid mass extending into ethmoid and orbit.

On removing the skull and dura diffuse purulent meningitis was found involving the whole brain. Over the right temporo-sphenoidal area was an extensive patch of necrosing cortical encephalitis which extended to a depth of 3 cm. All the ventricles were distended by a foetid green pus. Seen from the intracranial aspect the basi-sphenoidal and basi-occipital bones showed complete necrosis. Only their outer walls remained. The pituitary body was reduced to a semi-fluid mass and the adjacent osseous sinuses were full of pus. The jugular bulb, sigmoid, and lateral sinuses were firmly thrombosed.

Films of the pus from all the regions showed the same character—viz., streptococci, staphylococci, mycelia, and coarse forms of *Spirochaeta foetida* with some bacilli of xerosis type (diphtheroid).

The thoracic and abdominal viscera were normal. The right orbit contained green pus which entered by a perforation in the ethmoid, the roof was intact, and the left orbit not involved.

A specimen of green pus, removed on opening the peritonsillar abscess, showed no evidence of recent suppuration. The bacteria were the same as those found at the necropsy. This material was evidently an old pocket of pus from which infection burrowed into the deep cervical fascia in an upward direction causing acute osteomyelitis of the basi-occipital and sphenoidal bones followed by a meningeal infection and necrosing encephalitis. Such conditions strikingly illustrate the powerful tryptolytic action of unevacuated pus even upon living structures hard or soft, an action second only in importance to that of the infecting organisms. The streptococcus was the active pyogen, the spirochaetes being doubtless merely symbiotic saprophytes, yet adding to the destructive powers of the locked-up pus.