

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### A CASE OF TETANUS.

BY D. LEIGHTON DAVIES, M.D., M.S. LOND.

THE patient, a healthy-looking farm labourer, aged 45 years, fell down on the road and sustained a cut over the right malar bone. The wound was not treated in any way and in the course of the next few days it kept "gathering and discharging." Six days later he felt his jaws becoming stiff and on the seventh day he was quite unable to open his mouth. When seen on the following day—i.e., eight days after the infliction of the wound—he was quite unable to move his lower jaw more than one-sixth of an inch. There was a suppurating wound over the right malar bone just below the outer margin of the orbit. From this a track passed beneath the skin for about one and a half inches into the cheek and this contained a quantity of yellow pus. No bare bone was felt. There was slight chemosis of the conjunctiva of the right eye. He was intelligent and, except for the trismus, complained of no pain. There was complete right facial paralysis, the furrows on the right side of the forehead and the naso-labial fold being obliterated. There was inability to close the right eye and the lower eyelid had fallen away from the globe of the eye. The mouth was drawn over to the left. Both masseter muscles felt firm, but could be made harder by voluntary effort. There was no spasticity or paralysis of any other muscles of the body, the neck muscles being quite normal. There was no loss of sensation anywhere. Both knee-jerks were brisk and the plantar reflex was flexor. His pulse was normal in rate and his temperature was 99° F. On the next day (i.e., the third day of the illness) laryngeal spasms developed. Sudden paroxysms of intense dyspnoea would occur from time to time, during which there was tremendous action of the platysma myoides, giving the face a very hideous expression. He became almost maniacal during these paroxysms, tearing the dressings off his head and throwing himself about violently, and all the while he was bathed with a profuse perspiration. There was no cyanosis even during an attack and the pulse was strong. The temperature remained normal. In the intervals between the paroxysms the neck appeared to be a little stiff. To allay the paroxysms he was given a quarter of a grain of morphine hypodermically and this gave him relief for over 12 hours. At the expiration of that time he suddenly became worse, jumped out of bed in a frenzy, and fell back dead. Unfortunately, a post-mortem examination was not permitted, but I succeeded in obtaining the trunk of the facial nerve of the right side as it left the stylo-mastoid foramen. To the naked eye it looked quite normal and microscopical examination showed an entire absence of pathological changes both in the neurilemma and the nerve fibres themselves.

*Remarks.*—The case was undoubtedly an example of infection with the tetanus bacillus, though at the time I overlooked the desirability of taking some of the pus for bacteriological examination. It differs, however, from the somewhat meagre description of this variety as given in the text-books I have consulted. The prognosis is stated to be somewhat more favourable in this variety than in the generalised type, but in this case death occurred three days from the onset of symptoms and nine days after the opportunity of infection occurred, and there was an entire absence of generalised spasm. There was no pharyngeal spasm but the laryngeal spasm was very distressing. The sudden termination of the disease in death may have been due to the laryngeal spasm or more probably to a sudden spasm of the cardiac muscle caused by the action of the toxin on the vagus centre. With regard to the underlying pathological changes leading to the facial paralysis, it has in the past been suggested that there was an ascending neuritis of the facial nerve. In the cases that have been examined no such changes have been found in the facial nerve and certainly there was no neuritis in this case. It is very probable that the paralysis is due to the action of an excessive dose of a virulent toxin on the nucleus of the

facial nerve leading to the destruction of its cells. This is rendered more probable by the fact that the only muscles affected by the spasm were those which were innervated by nerves having their origin from nuclei in the neighbourhood of the seventh. The toxin must have reached the facial nucleus by passing up the lymphatics accompanying the facial nerve, for clearly it was not likely to have been the blood-stream, seeing the region picked out was so localised and definite. This fact, too, may explain why it was that the facial nerve was paralysed and the other nerves escaped, for it may be conjectured that the virulent toxin meeting first the cells of the facial nucleus destroyed them, and that by the combination of some of the toxin with the protoplasm of the cells, which is known to occur, the virulence of the toxin was diminished so that its action was merely irritating and not destructive on the remaining nuclei.

Wisbech.

#### CALCIUM SALTS AS A CARDIAC TONIC.

BY JOSEPH STARK, L.R.C.P. & S. EDIN., L.F.P.S. GLASG

CALCIUM salts have come much into prominence of late in the treatment of ulcers, both internal and external; they are also advocated for chilblains and to be given before operations likely to be attended with severe hæmorrhage. The well-known therapeutic effect of calcium salts is that they increase the coagulability of the blood. It is therefore quite easily understood why they are given in cases where hæmorrhage is anticipated but in cases of cardiac disease and pneumonia I think that some reasoning is required before accepting the same. Having under my care a married woman, aged 40 years, suffering from an ulcer on one of her legs, which seemed to be due to deep varicosity of veins I gave her 15 grains of calcium chloride three times a day. At the time I did not further examine her as she was fully dressed. I was called out on the third day of treatment to see her—she was complaining of numbness of the right side of the body and was cyanotic. The next day she was a little better but still had the feeling of "pins and needles" in her right arm and leg. On the following day she had complete hemiplegia. There is no doubt on account of the slow onset that the lesion was due to cerebral thrombosis. I may state that I had now further examined the patient and found that she had a mitral lesion. I thought of my treatment and the therapeutic use of the same and came to the conclusion that the calcium salts had something to do with the condition of the patient. Sir James Barr has lately advocated calcium salts in pneumonia. It is well known that an ante-mortem clot is found in the pulmonary artery in most of the fatal cases of pneumonia. Then why should the practitioner endeavour to increase the coagulability of the blood? Dr. W. Blair Bell says that it is only in certain cases that we should use the same. I do not think that Dr. Bell's method of examining the blood is applicable in general practice and therefore I would advise general practitioners at least not to treat pneumonia and diseases of the heart by the calcium salts.

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#### HERNIA OF ILEUM PRESENTING OVER THE THORACIC WALL.

BY HERCULES H. MACDONNELL, M.D. DUB.,  
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A MAN, aged 28 years, was admitted into the Louth County Infirmary, Dundalk, on Oct. 8th, 1906. On the previous day he had been knocked off his bicycle. On admission he complained of faintness and pain over the chest, and a small tumour about two inches in diameter was seen situated over the sixth and seventh ribs on the left side about two and a half inches from the border of the sternum; this was extremely painful to the touch, so much so that a thorough examination without the aid of an anæsthetic was not possible; for several reasons it was not considered advisable to administer one. The skin over the tumour had a slightly bluish appearance. A tentative diagnosis of fractured ribs with a possible hæmatoma was made. Pads were placed at either side of the tumour to avoid pressure and a broad flannel roller applied over the thorax. The bowels were freely moved on the next day. On the fourth day after admission, on removing the pads

and bandage to make a further examination, a superficial area of four inches broad was seen to be bright red and fluctuation was felt. The surface having been sterilised a free incision was made over a director, when an escape of gas and faeculent matter took place. A portion of intestine, doubled on itself, of the thickness of a thumb and gangrenous, was found lying in the wound; the tissues were undermined in every direction with faeculent matter. The bowel having been with some difficulty drawn up till a healthy portion was reached was divided, one end was sewn to the skin, and a thoroughly permeable fistula established. Owing to the patient's collapse and to the state of the tissues it was not deemed advisable to proceed then to further operative measures. As much of the gangrenous intestine as possible was removed. Subsequently rectal alimentation was carried out, which for a time succeeded extremely well, eventually enabling a little strong beef essence to be taken by the mouth, but after a week this had to be discontinued, as faeculent matter, discharged through the opening, brought on such an unhealthy condition of the integument and subjacent tissues. Small enemata of saline solution used for the purpose of maintaining the rectum in a healthy condition were passed through the thoracic wound, but the patient gradually became weaker. As soon as the tissues surrounding the fistula were brought into a tolerably healthy condition an end-to-end anastomosis with a Murphy's button was carried out; eight hours afterwards flatus and faeces were passed freely through the anus, but the patient gradually sank and died in about 24 hours. During the operation the track of the hernia was carefully traced by dissection; the bowel, a portion of the ileum, was seen to escape from the abdominal cavity at the extremity of the ninth rib, passing over the eighth rib, and had forced its passage up to the upper border of the sixth rib.

Dundalk, co. Louth.

## Medical Societies.

### OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

#### *Congenital Night Blindness.—Subretinal Cysticercus.—Metastatic Tumour of Choroid.*

A MEETING of this society was held on June 13th, Mr. PRIESTLEY SMITH, the President, being in the chair.

Mr. E. NETTLESHIP communicated a genealogy in which Congenital Stationary Night Blindness occurred in Nine Consecutive Generations during about 250 years. This disease, often hereditary, was less known than retinitis pigmentosa and its so-called unpigmented variety and, unlike them, did not progress. A great part of the present case was published by Cunier nearly 70 years ago and had been mentioned by many writers. But the nature of the disease was unknown until a year ago, when, at Mr. Nettleship's request, Professor Truc of Montpellier examined several living night-blind descendants, established the diagnosis, and instituted a fresh inquiry, resulting in an extension of Cunier's tables from upwards of 600 persons in seven generations, to nearly 1800 in ten generations. Only certain branches of this large tree, containing about 260 persons, bore the disease, and of this number just one-half (129) contained in 60 childships were affected. In half the affected childships (29) the proportion of diseased to healthy agreed with the Mendelian theory; others showed a near approach to agreement, and others again would conform if the dominance were supposed to have been reversed. About a quarter of the cases seemed inconsistent with Mendelism, but incompleteness of record doubtless accounted for some of these. The disease always passed from parent to child without a break, was rather commoner in females than males, did not lead to blindness, and was not accompanied by any other defects or peculiarities. It was not due to consanguinity; there were only two first cousin and seven second cousin marriages, and only one of these nine produced night-blind children. No ophthalmoscopic changes were noted.

Mr. L. WERNER (Dublin) showed a coloured ophthalmoscopic drawing, lantern slides, and microscopic sections of a Subretinal Cysticercus. The patient, a youth, aged 19 years,

had noticed a failure of sight in the right eye for four months. The eye was normal in outward appearance and the tension was also normal, but in the fundus close to the optic disc was a large spherical projection covered by the retina and resembling an intraocular tumour. It presented a transparent, bluish-white appearance with a very delicate margin in some parts. The surface was smooth and marked with white connective tissue-like areas and a small portion was pigmented. A remarkable feature was the presence of a deep pit in the tumour and also an enormously dilated retinal vessel, which disappeared abruptly in the growth. The diagnosis was doubtful and the eye was removed. On examination it was found that the growth was an intra-retinal cyst, in which a cysticercus had been encapsuled. The pit seen in the growth with the ophthalmoscope was found to be due to a mass of granulation tissue, which divided the cyst into two cavities in the sections. It extended from the posterior to the anterior wall and by retraction of the latter produced a depression in it. The blood-supply of the granulation tissue was derived from the dilated vessel alluded to before. Mr. Werner stated that intra-retinal cysticerci were very rare, for of 29 cases anatomically examined only three were in the retina.

Mr. WHITEHEAD read notes of (1) a case of Metastatic Tumour of the Choroid. A mammary tumour, which had been present two years, was removed seven years ago. Recurrence took place in the scar and many metastatic tumours appeared in various parts of the body. Vision failed in the right eye and after four weeks the eye became blind and glaucoma set in. The eyeball was excised and a flat growth was present in the choroid. Microscopically this was found to consist of closely packed spindle-shaped cells with an excess of fibrous tissue between irregular groups of tumour cells. 2. A case of Multiple Cysts of the Retina associated with Glaucoma.

### EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

#### *Exhibition of Specimens.—Administration of Gas and Ethyl Chloride.—Massage and Movement in the Treatment of Fractures.—The Naso-pharynx as Infection Carrier in Epidemic Cerebro-spinal Meningitis.*

A MEETING of this society was held on June 5th, Dr. J. O. AFFLECK, the President, being in the chair.

Dr. R. W. PHILIP showed a series of specimens from cases of Poisoning by Hydrochloric Acid.

Mr. WILLIAM GUY read a paper on the Administration of Gas and Ethyl Chloride. He said that, having administered anaesthetics to some 26,000 patients without mishap, without experiencing a moment's anxiety, or having to use a pair of tongue forceps or to practise artificial respiration, he might be allowed to express some confidence in his methods. He employed from time to time all the usual agents alone, in mixture, and in sequence, but his present practice was to use nitrous oxide for all operations that could be performed in 30 seconds, nitrous oxide and ether for operations requiring from one and a half to three and a half minutes, and nitrous oxide and ethyl chloride mixture for operations requiring from 30 to 90 seconds, this last class comprising the great majority of hospital extraction operations. He referred to "somnoform" and said that although it was unstable and expensive and had no advantages over ethyl chloride alone Dr. Rolland's researches in connexion with it were of great value in drawing attention to its constituents, particularly ethyl chloride. Ethyl chloride was at present under a cloud owing to the large number of deaths (30) recorded as attending its use and to its disagreeable after-effects. He quoted the opinions of authorities and said he had himself entirely given up the use of ethyl chloride by itself, because the mixture of gas and ethyl chloride was in every way preferable. The dangers of ethyl chloride anaesthesia were (1) direct cardiac inhibition; and (2) asphyxia from (a) partial or complete respiratory obstruction; and (b) paralysis of the respiratory centre by an overdose. The first danger was avoided by giving nitrous oxide to slight narcosis before ethyl chloride; the other dangers must be met by taking all precautions to eliminate the asphyxial element and by keeping the dose of the drug and the time of administration within the ascertained limits of safety. He described his apparatus and method of