REPORT OF CASES DEMONSTRATED AT THE F.R.C.S. CLASS.

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Case 1. Swelling in the Neck.

Mrs. W. aged 28 complained of a lump at the right angle of the jaw, the size of a hen egg. She had had the swelling for several years, during which it had varied in size and had been subject to attacks of inflammation. The diagnosis of a suppurating tubercular gland had been formed. Six months ago she was admitted to hospital during an acute attack when she was considered to have an abscess. By splinting the head, the inflammation subsided and her large unhealthy tonsils were removed by dissection as these were considered to be an exciting focus. During the removal of the right tonsil, a quantity of thick, clear fluid was observed to escape as the tonsil was separated from its bed in its postero-inferior area, i.e. from the junction of the posterior pillar of the fauces and the tongue. This fluid aroused comment at the time but no cause for it was found. During the following week the tumour steadily became smaller, but then it began to enlarge to its present dimensions.

The swelling extends from slightly underneath the anterior border of sternomastoid into the sub-maxillary triangle and also is in contact with the angle of the jaw. It is quite painless and what is important in the diagnosis, it is translucent.

Here therefore, is a patient with a swelling containing clear fluid. What is the diagnosis? The following are possibilities given in order of probability:

- (1) A branchial cyst;
- (2) A cystic hygroma;

Other suggestions made by members of the class were: a dermoid cyst, a sebaceous cyst, and a lipoma.

The tumour is probably a branchial cyst because of the following points. Its position and the history of seven or eight years with the occasional attacks of inflammation is in keeping with the known habits of these swellings. The clear fluid which escaped when the tonsil was removed, followed by its reduction in size suggests that it may have had a connection with the pharynx. Finally its translucency shows that the fluid is clear and not pus. This factor is important in excluding a tubercular abscess which also would be unlikely to persist for so many years without development one way or another, and also had it been an infection in a gland it would probably have subsided after removal of the tonsils, instead of which the tumour has become larger but without showing any signs of inflammation.

The suggestion of a cystic hygroma is a reasonable one in view of the translucency of the swelling but the writer has never seen a cystic hygroma in this area in an adult. They are usually in infants and at the root of the neck above the clavicle. The suggestions of a dermoid cyst, sebaceous cyst, sub-maxillary tumour and parotid tumour are all unlikely in view of the history and physical signs and are not in keeping with one's clinical experience.

Operation. Incision in the line of the creases of the neck which was deepened through platysma and the deep fascia. The tumour was found to be a large thin-walled cyst which penetrated to the mouth. The anaesthetist's finger in the mouth felt cyst attached at the tongue about the anterior pillar of the fauces. The dissection

of the cyst was difficult in the extreme, it was so deep. It was burst during the procedure and ultimately, when completely defined there seemed to be two stalks attaching it to the oral cavity. These were tightly ligatured with No. 1 catgut, divided, and the cavity swabbed with acriflavine. A gauze drain was inserted. The wound was closed. Time about 1 hour, undoubtedly a rare case.

Case 2.

A woman aged 28 complained of a swelling immediately above and in front of the internal epicondyle of the humerus. She had had the swelling for two years and it had varied somewhat in size. It was quite painless and was the size of a walnut with a suggestion of a furrow in its surface, (?) due to lobulation, (?) due to a vein grooving it. She had had several attacks of adenitis in the posterior cervical glands for which she had consulted her doctor on several occasions. The swelling at the elbow was mentioned *en passant*.

On examination she was a healthy woman. The swelling was the size of a walnut, slightly movable from side to side and up and down. It was not translucent nor was it fluctuant. There was no impairment of muscle power or of sensation in the limb.

There was no similar swelling on the opposite side nor were there glands in either axillæ or groins. In the neck there was still some thickening at the posterior border of the right sterno-mastoid. The left side of the neck was clear. The spleen was not palpable. The W.R. was positive. The blood count, hæmoglobin and blood picture were normal.

Without the Wassermann test the diagnosis lay between an enlarged epitrochlear gland, a lipoma, a neurofibroma and a blood disease; the latter requiring special attention on account of the enlargement of the glands in the neck. The diagnosis submitted is that of an epitrochlear gland due to late secondary syphilis. Candidates frequently missed the enlargement of the glands in the neck and also the history of their having been inflamed sufficiently to cause the patient to consult her doctor.

Another diagnosis offered was that of a Baker's cyst in the elbow joint, although the joint was quite normal in every respect and the cyst was not translucent even in a dark room with a strong light. The total absence of the latter physical sign also excluded a lipoma which will show this sign to some extent with a good light.

The possibility of a neurofibroma was unlikely for the tumour moved moderately in all directions and was insensitive, besides there is no named nerve in this situation and there was no nerve lesion and the swelling was larger than is usual for a tumour of a small peripheral nerve.

Of the blood diseases, lymphatic leukæmia is excluded by the blood examination. Hodgkin's disease was a possibility until the Wassermann reaction was determined. Had the Wassermann reaction been negative then a biopsy would have been necessary.

Since, the gland has almost disappeared with pot. iod. and mercury.

Case 3.

A boy aged 14 complains of a tender swelling about and below the angle of the jaw on the left side. It had been there more or less for several years but of recent months it has become painful and in the last week or two tender to touch. He is an only son and had had no previous illnesses beyond childish ailments. His father

Case 1. Mrs. W. Photograph showing branchial cyst.

Case 3. Tuberculous abscess of neck.

Case 4. The unreduced Colles fracture.

Case 4. Showing :—
(a) Dupuytren's contracture of the fingers
(b) Inability to supinate in an unreduced Colles fracture.

and mother's health is good and there is no tuberculosis in the family history. Apart from the swelling he is quite well. He suffers from colds occasionally but not more so than usual.

The swelling is the size of a large tangerine. The surface is somewhat lobulated and its edges merge into the surrounding tissues. Its upper limit is slightly above and behind the angle of the jaw, anteriorly it extends into the sub-maxillary triangle inferiorly to the junction of the upper third and middle third of the sternomastoid, which muscle appears to merge into the wall of the swelling. Fluctuation is present in the lower part where it is subcutaneous. The tonsils are enlarged, buried and inflamed. There are no other glands palpable in the rest of the body.

The clinical diagnosis is almost certainly a mass of tubercular glands which have broken down. The probable focus being in the enlarged, inflamed, buried tonsils. The diagnosis mostly offered by the candidates of the class is that of a branchial cyst; secondarily, suppurating tubercular glands and occasionally a parotid or sub-maxillary tumour.

The suggestion of a branchial cyst is rejected for the following reasons. Branchial cysts are commoner in the decade 15—25 and in girls more than in boys. They are not common tumours and although they are said to be subject to attacks of inflammation, the demonstrator has seen an inflamed branchial cyst but rarely. The lobulation negatives it and the tumour is not translucent as is usually the case in superficial branchial cysts with a good light. The matting of the surrounding tissues, tenderness, lobulation and fluctuation are all in favour of liquefying adenitis and as the tumour is of several years' standing, infection by the tubercle bacillus is the most likely explanation.

The other suggestions of salivary tumours, although possible for swellings in this area, are ruled out by the physical characteristics and history.

The treatment suggested by candidates is interesting. They detail two methods: (a) Send the boy to the country for three to four months and build up his general health; (b) Aspirate the abscess plus method (a). No candidate suggests seeking out and removing the focus such as an X-ray of the skull and examination of the nasal sinuses for an infected antrum, dissection of the septic tonsils or X-ray of the chest to exclude phthisis and bronchial glands.

With regard to aspiration, although this is conventional teaching, the demonstrator has never seen a case which it has benefited, one of three results have usually followed: (a) nothing is withdrawn; (b) pus is withdrawn and the abscess becomes secondarily infected and a persistent sinus with an unsightly tubercular skin infection develops; or (c) acute suppuration with rapid development of pus and involvement of the skin. For these reasons he never advises aspiration. X-ray of the skull showed nothing abnormal.

The diagnosis is since established by operation, much pus, caseous material and necrotic gland tissue being evacuated. The resulting cavity after swabbing generously with flavine, being immediately closed without drainage.

In this case the abscess is dealt with before the tonsils because of the fluctuation and pus burrowing to the surface. The exciting focus, the tonsils, will be dissected out in three to four weeks' time, after which the suggested country holiday will be arranged.

Case 4.

The patient a man aged 46, had sustained an impacted Colles' fracture of his

right wrist in January 1938, which was incompletely reduced as the picture shows. On his other hand was a typical Dupuytren's contracture of many years standing, as is clearly illustrated by the photograph. The right hand shows the limit of the patient's power to extend the fingers and to supinate the wrist, this disability being due to the imperfect reduction of the fracture.

This case was brought to stimulate consideration of a question like the following: "Discuss the diagnosis and treatment of contractures of the fingers." Such a subject can be treated either on purely clinical lines, merely enumerating a list of the common causes of contracted fingers, or by a comprehensive academic classification. Perhaps a combination of the two would be best. A systematic classification is as follows:

(1) Causes in the skin, of the hand and fingers, e.g. burns, scalds, and gross scarring after infections and wounds on the palmar surface of the hand.

(2) Causes in the palmar fascia, e.g. congenital contracture of the little finger, Dupuytren's contracture, and after infected palmar spaces and burns.

(3) Causes in the tendons, e.g. divided extensor tendons, matted flexor tendons after infections and trauma.

(4) Causes in the bone, e.g. fractured phalanges and metacarpal bones.

(5) Causes in the joints, e.g. after trauma, infections and rheumatoid conditions.

(6) Traumatic conditions unconnected from the hand, e.g. Colles' fracture, fractures of both bones of the forearm, fractures and dislocations about the elbow-joint. These conditions will remind the reader of matted tendons at the wrist-joint and of Volkmann's ischaemic contracture of the fingers which is characterised by the patient's inability to extend the fingers fully except when the wrist is fully flexed.

(7) Nerve lesions

(a) At the wrist and forearm, elbow and arm to the median and ulnar and musculo-spiral nerves.

(b) In the brachial plexus.

(c) In the nerve roots, e.g. cervical rib.

(d) In the spinal cord, e.g. anterior poliomyelitis.

(e) Functional contractures.

(8) Constitutional conditions, e.g. the rheumatoid lesions as rheumatism and lead poisoning.

Although the diagnosis of this patient's condition was fairly obvious, yet an appreciable number of candidates, with the frequent weakness of examinees to look for the unusual, suggested lesions of the tendons and Volkmann's ischaemic palsy.

Case 5.

A boy aged 15 complained of a swelling in his groin. He was sent to hospital with a "rupture."

On standing the patient up (the best way of examining any patient with a possible hernia), the diagnosis was immediately obvious. The left half of the scrotum was empty. There was a swelling just above and outside the external

abdominal ring. On palpation the swelling was certainly the testicle and it would move freely in all directions centred at the external ring. On lying the patient down and asking him to sit up unaided i.e. to contract his abdominal muscles, the testicle was still easily palpable and freely movable. Thus it lay between the subcutaneous tissue and the external oblique, it was an ectopic testicle.

This definition of its position was important from the point of view of treatment. It meant that no endocrine treatment would be of service in bringing this testicle into its place in the scrotum. Several candidates completely missed the diagnosis and called it a hernia. Very few detected its ectopic character and when the treatment was discussed, not one mentioned that endocrine treatment was useless. This form of therapy was freely advised. The treatment for this testicle is the Torek operation, i.e. placing the testicle into the scrotum after thoroughly mobilizing it, making a hole in the scrotum and opposite to this another opening in the thigh, drawing the orchid through them and fixing it by two sutures to the deep fascia of the thigh. The corresponding edges of the skin of the scrotum and the thigh are sutured together with catgut.

Three months later the scrotum is separated from the thigh, the testicle is freed from the deep fascia put into the scrotum and the two wounds are closed.

The results of this operation are consistently good. In the writer's experience they are far superior to the old-fashioned orchidopexy when the testicle was anchored to the skin of the thigh either by suture or by strapping and a suture. The writer has not known a failure from a Torek operation whilst the percentage of success after the old operation was only about 65—70 per cent.

The important point in the operation of orchidopexy besides mobilizing the testicle and the cord to the full extent, is to avoid injury either to the spermatic artery or to the veins. There is seldom difficulty in bringing the testicle into the scrotum if the coverings of the cord are divided, but if the vessels are injured, then the surgeon may well save himself time and trouble and remove the testicle, for with an interrupted blood supply atrophy of the organ is inevitable.

A note concerning the possible positions of an ectopic testicle is worthy of mention. Such a testicle may lie in any position around the external ring, generally however, it takes up either a north, south, east or westerly direction, i.e. north on the abdominal wall, east on the thigh, west on the pubis at the root of the penis or south on the perineum.

Final Fellowship candidates are referred to a note (published after this was submitted for publication) by Mr. Denis Brown on the undescended testicle in the B.M.J., July 22nd, 1938.