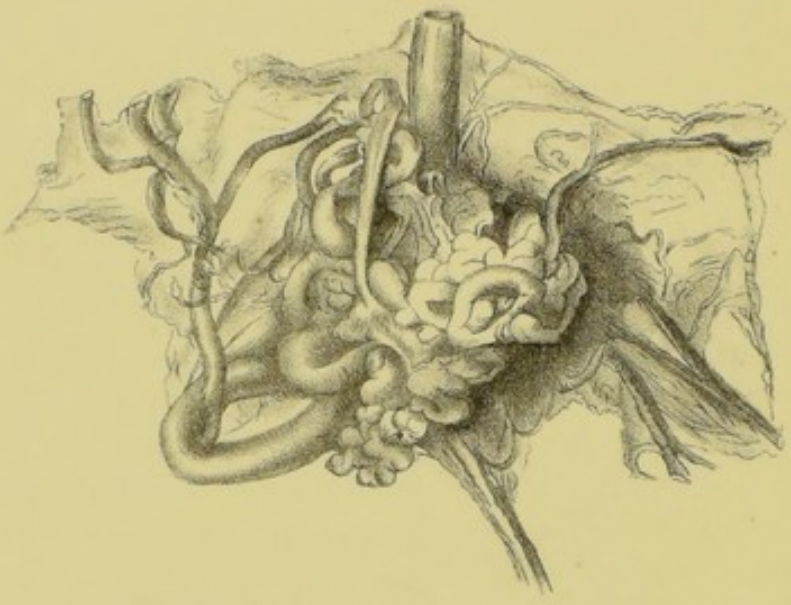
Angioma of the cerebral membranes (card specimen) ; A submaxillary gland removed with an unusually large salivary calculus (card specimen) ; A case of congenital umbilical hernia ; Cases of sarcoma of the urinary bladder ; Simple comminuted fracture of the head of the tibia ; A parosteal tibia, or congenital fatty tumour, connected with the periosteum of the femur / by D'Arcy Power.

Fig. 1.



Reprinted from the 'Transactions of the Pathological Society of London,' 1888.

26.

Angioma of the cerebral membranes. (*Card specimen.*)

By D'Arcy Power, M.B.

[With Plate I, fig. 1.]

The angioma forms an oval swelling situated upon a vein on the cerebral surface of the pia mater covering the angular gyrus. The tumour itself, after preservation in spirit, measures an inch in length and three quarters of an inch in diameter. It consists of a close plexus of vessels, which have an average diameter of an eighth of an inch, and are therefore of sufficient size to receive a coarse injection of gelatine and carmine. The vessels appear to be derived from the vein upon which they lie, reinforced by branches from the neighbouring veins.

From a young man aged 20, who suddenly became comatose after returning from work in an apparently healthy condition. Whilst he was comatose he had left hemiplegia with divergent strabismus. Two days after the seizure the patient had several attacks of opisthotonos with spasm of the left limbs. He died ten days after the onset of the symptoms.

At the *post-mortem* examination a large irregular hæmorrhage was found in the right cerebral hemisphere. The blood appeared to come from the vessels immediately surrounding a tumour which was situated upon the surface of the right angular gyrus, though its exact source was not determined. The hæmorrhage extended from the surface of the brain to the posterior part of the internal capsule, and had neither burst into the lateral ventricle nor externally. The spinal cord and other organs of the body were quite healthy.

The specimen is preserved in the museum of St. Bartholomew's Hospital, Series xxx, No. 2466(a). *February 7th*, 1888.

27.

A submaxillary gland removed with an unusually large salivary calculus. (Card specimen.)

By D'Arcy Power, M.B.

A submaxillary gland removed with a large submaxillary calculus. There is a deep depression at the upper and inner part of the gland where the calculus lay. At the bottom of this depression is Wharton's duct, cut across at the point where it leaves the gland. A piece of glass rod has been passed along its lumen into the gland-tissue. The gland itself is indurated, but otherwise appears to be healthy.

(*b*) The salivary calculus which was removed from the above gland. The stone weighs 4·4 grammes, and measures an inch in its long axis and one a half inches in circumference at its thickest part. It consists chiefly of phosphate and carbonate of calcium and magnesium.

(*c*) Cast of the preceding calculus to show its oval shape.

The gland and calculus were removed by Mr. Butlin from a gentleman aged 52 through an incision in the neck. The presence of the calculus was suspected, but was not discovered until after the removal of the gland. The patient had been subject to occasional swelling of the submaxillary region for more than forty years. There had been permanent enlargement and suppuration of the salivary gland for some time before the operation was performed.

The gland and calculus are preserved in the museum of St. Bartholomew's Hospital, Series xiv, No. 1826 (*a*) and liii, No. 245 (*a*). The cast is in Series lvi, No. 117 (*a*). *November 2nd*, 1887.

28.

A case of congenital umbilical hernia.

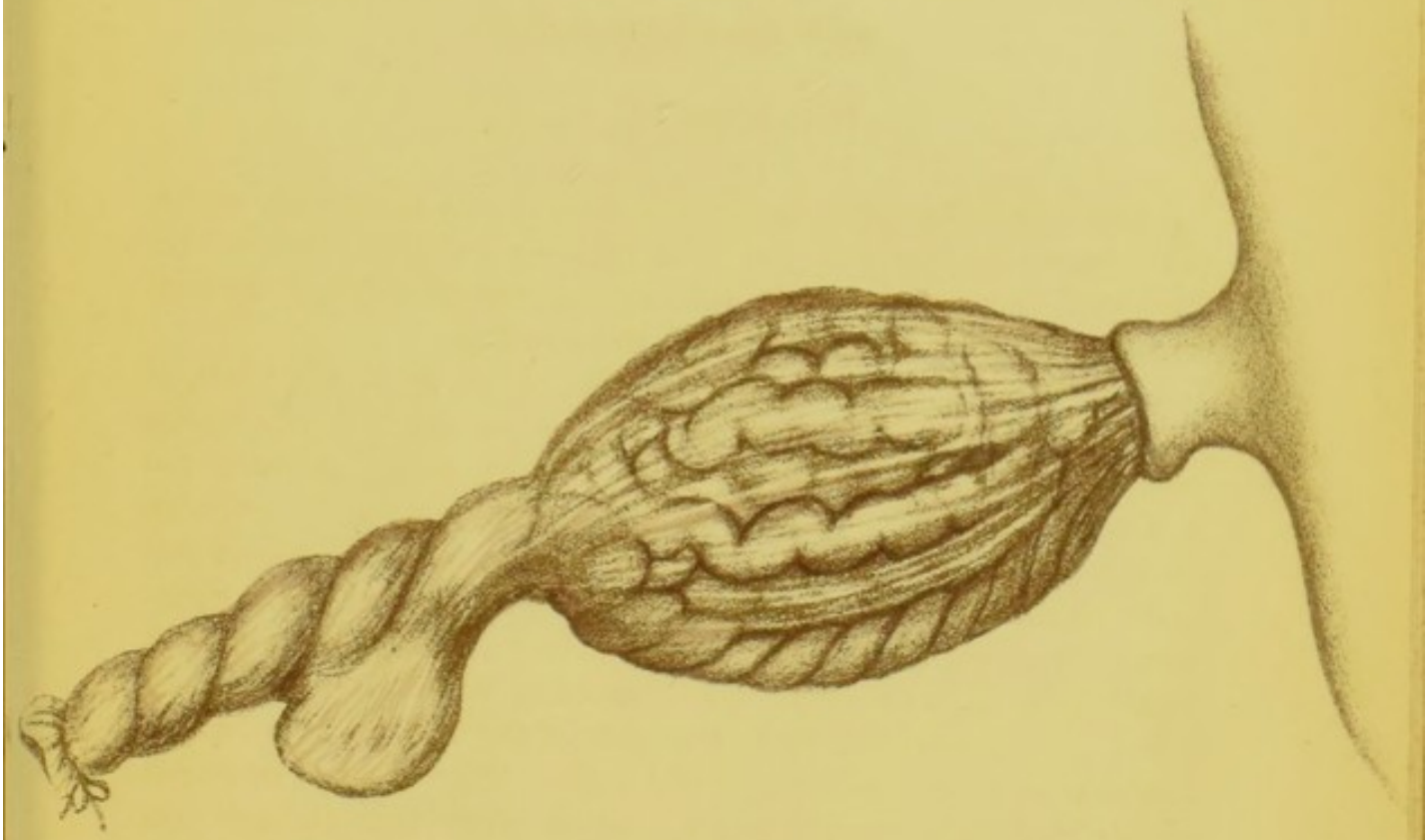
By D'Arcy Power, M.B.

[With Plate VII, fig. 2.]

Although congenital umbilical hernia is not of extreme rarity, yet as no specimen has hitherto been exhibited before this Society, I thought that the following case was of sufficient interest to warrant my bringing it forward this evening.

I am indebted to the kindness of Mr. J. J. de Z. Marshall, of Lamberhurst, for the preparation, as well as for the particulars concerning it. "The mother is a healthy young woman, the mother of three previous children who were girls; the fourth, born on November 9th, 1886, was a fine full-term boy. The labour was quite natural, but a placenta-like mass came away with the abdomen. On closer examination by the aid of a candle this mass was found to be a transparent sac containing several coils of small intestine. It was situated in that part of the umbilical cord which was nearest to the abdomen of the child. The cord was ligatured and divided in the usual manner, and an ineffectual attempt was then made to replace the bowel through the umbilical opening. After the application of gentle taxis for ten minutes, as the colour of the bowel became visibly deeper, the sac was carefully opened on a director; the gut, however, could not yet be returned into the abdominal cavity, and it was therefore found necessary to enlarge the umbilical ring. About a foot of small intestine was then with some difficulty passed into the peritoneal sac. The edges of the ring and of the bowel were subsequently brought together with silver wire, carbolised dressings were applied, and the abdomen was supported with a broad strip of plaster and a bandage. The child survived his birth and the operation for three days, dying of peritonitis.

The tumour appears to be formed by a dilatation of the coverings of the proximal portion of the funis. It is fusiform in shape, and



T. Godart del.

E Burgess lith.

has the main constituents of the umbilical cord running as a bundle along its lower border. The wall of the sac consists of a thin and soft membrane, which was so transparent whilst the specimen was fresh that the coils of intestine could readily be seen through it. The external surface was polished, and closely resembled the outer surface of the cord, whilst internally the sac is covered with a smooth layer, which is apparently derived from the peritoneum. At the apex of the tumour the funis reappears, and has upon its under surface a cyst containing a viscid fluid. A bristle has been passed for a short distance into the umbilical vein, and a green rod has been passed between the sac wall and its peritoneal lining.

I find that Antonio Scarpa and Sir William Lawrence, in their classical treatises on rupture, have given a complete account of this variety of hernia, and their descriptions apply in nearly every respect to that which I have just read. The present case is only remarkable in that the child had no other imperfection (for both these authors state that it is often associated with some deformity, usually spina bifida), and on the presence of the second smaller cyst filled with fluid.

The specimen is preserved in the museum of St. Bartholomew's Hospital, Series xx, No. 2156 (*a*), and a drawing made before the return of the rupture in Series lvii, No. 260. j.

October 18*th*, 1887.

29.

Cases of sarcoma of the urinary bladder.

By D'Arcy Power, M.B.

Sarcoma of the bladder is a comparatively rare disease, indeed the ordinary English text-books on surgery hardly refer to it, whilst Gross in his 'System of Surgery'[1] says that "as verified by minute examination sarcoma is one of the rarest of the neoplasms of the bladder." In the following paper, however, I shall endeavour to show that this statement is hardly founded upon fact, or at any rate that my predecessors, the curators of the museum at St. Bartholomew's Hospital, have been singularly fortunate in preserving a considerable number of specimens of vesical sarcoma.

The first example is a bladder which has been laid open along its anterior wall; its cavity is seen to be obliterated, except at its upper part, by the new growth which has infiltrated its anterior and lateral walls as well as the fundus. The portion of growth which occupies the cavity of the bladder is a tuberous and cauliflower-like mass. The rectum has become involved by its extension backwards, and near the anus the tumour actually projects into the cavity of the bowel. The projecting portion, however, has broken down, and a fistulous passage has in this way been established between the bladder and the rectum. A piece of catheter has been passed through an opening at the upper portion of the specimen which was made by supra-pubic puncture of the bladder, a fortnight before the death of the patient. The preparation was obtained from a man, aged 64, who had suffered from hæmaturia for eighteen months. The growth was partially removed by median cystotomy and dilatation of the prostate, but as it continued to increase in size, and micturition became difficult and painful, the bladder was punctured above the pubes. Microscopically the growth is a typical mixed-celled sarcoma.[2]

[1] Vol. ii, p. 620, ed. vi. Philadelphia, 1882.

[2] It is preserved in the museum of St. Bartholomew's Hospital, Series xxx, No. 2419 (*a*).

Four other cases of sarcoma of the bladder are preserved in the museum of St. Bartholomew's Hospital. In the first[1] of these the new growth is single and infiltrates the whole organ, except the anterior third, and nearly fills its cavity. The bladder is not hypertrophied, nor are either of the ureters dilated. The uterus is involved in the infiltration, but the vagina is free. Microscopically the growth consists of round sarcoma cells with little or no matrix.

In another specimen[2] the bladder has several masses of new growth, sessile on its mucous membrane. The largest of these masses is situated over the orifice of the right ureter, and infiltrates the muscular as well as the mucous coat of the bladder, whilst a smaller mass grows from the left side of the urethra. Numerous masses of growth, measuring on an average three quarters of an inch in diameter, are scattered over the rest of the mucous membrane. The bladder is slightly hypertrophied. It was removed from a man, aged 57, who exhibited symptoms of the disease for six months before his death. Microscopically the tumour is a mixed-celled sarcoma which is undergoing mucoid degeneration.

In a third instance[3] the bladder contains several firm round tumours which are situated between the mucous and muscular coats of the fundus. One tumour projects into the cavity of the organ, whilst the rest protrude on its outer surface, being covered by the peritoneum and the muscular fibres of the organ. Microscopically the growths consist of small round-cells embedded in a homogeneous matrix.

The last specimen[4] preserved in this series is perhaps the most interesting, for it is of the nature of an alveolar sarcoma. It is described in the catalogue as a bladder, laid open by a vertical incision through its anterior wall. A pedunculated growth is attached to its inner surface, stretching transversely across the fundus of the bladder, immediately behind the apertures of the ureters, which are much dilated. The mass is attached at either side, but is free in the centre, and was so situated that it might lie forward over the urethral orifice, or be propelled in that direction when attempts were made to void the urine. The tumour, irregularly lobulated, consists of a fine filamentous structure scattered

[1] St. Bartholomew's Hospital Museum, Series xxx, No, 2428.

[2] Ib., Series xxx, No. 2429.

[3] Ib., Series xxx, No. 2430.

[4] Ib., Series xxx, No. 2419.

through a granular substance, and invested by a quantity of tesselated epithelium. The walls of the bladder are much thickened. At its upper surface the cavity of an abscess commences and extends to the umbilicus, but no communication can be traced between the two, although the urine continued to escape by the abscess up to the time of the child's death.

The small papilla close to the vesical termination of the abscess is all that appears of the urachus. A bristle passed some way down it, but could not, without violence, be forced into the bladder.

From a child who had suffered for eight weeks from extreme pain during micturition, presently followed by severe pain in the abdomen. A swelling formed about the umbilicus, softened, and was opened with a lancet, some healthy pus escaping. Urine began to dribble away from this opening, scarcely any escaping by the natural channel. The child, after lingering in a wretched state for some days, died.

I am enabled by the kindness of Mr. Hurry Fenwick to add the details of four additional cases of sarcoma of the bladder which are preserved in the pathological collections of London.

In the Hunterian Museum[1] is a lympho-sarcoma of the bladder from a man, aged 68. The entire organ is infiltrated, and so filled with the growth that only a small cavity is left at the trigone.

In the same collection[2] is a male bladder containing a single sessile growth situated on the left side of the orifice of the left ureter. The growth infiltrates the whole thickness of the vesical wall. It is probably a myo-sarcoma.

In the museum of Guy's Hospital[3] is a male bladder containing a mass of spindle-celled sarcoma situated near the right ureter. The rest of the mucous membrane is healthy. The growth consists of two parts, a body which is sessile and is covered with long villi, and an outer portion which is smooth, and which consists of looser tissue. The bladder is not hypertrophied, nor are the ureters dilated.

In the museum of the Middlesex Hospital[4] is a villous fibro-sarcoma which exists as a single oval growth attached to the bladder by a broad flattened base. The tumour is situated close

[1] The Royal College of Surgeons, No. 3706.
[2] Ib., No. 3707 (*a*).
[3] Guy's Hospital Museum, No. 2104[22].
[4] Middlesex Hospital Museum, No. 1750.

to the entrance of the right ureter, and is of the size and shape of a hen's egg. It is soft and spongy in texture. As in the preceding cases the bladder was taken from a man.

The preceding cases show that there are at the present time in London nine cases of sarcoma of the bladder of which three may be classified as mixed-celled sarcomata and two as round-celled sarcoma. The remaining four are isolated instances of fibro-sarcoma, lympho-sarcoma, myo-sarcoma and alveolar sarcoma respectively.

March 20*th*, 1888.

30.

Simple comminuted fracture of the head of the tibia.

By D'Arcy Power, M.B.

The specimen which I show to-night would have formed, I had hoped, a fitting pendant to the interesting preparation which Mr. Bull has just exhibited. It does not do so, I find upon a more careful dissection than I was able to give it when I placed a notice of it in the hands of Dr. Coupland, for I then believed it to be an example of a simple longitudinal fracture of the head of the tibia.

The fracture is, however, a sufficiently rare one to warrant my trespassing for a short time upon your patience. It is an impacted comminuted fracture of the upper end of the tibia, with a longitudinal fracture extending upwards through the internal tuberosity into the knee-joint.

The patient was a woman, aged 76, who fell down twenty stairs, and was picked up with her leg doubled under her. She survived the accident for a fortnight. I found, on dissecting the tibia, that she had sustained a comminuted fracture of the tibia with impaction. The fibula is also broken to pieces just below its neck. The lower fragment or shaft of the tibia has been driven upwards and forwards into the head of the bone, whilst a longitudinal fracture runs across the articular surface of the internal tuberosity. The line of this fracture is single until it reaches the posterior border of the tibia, where it divides into two branches, one of which runs directly backwards, whilst the other runs outwards. A small portion of the articular surface of the external tuberosity is split off by this bifurcation.

The main interest of the specimen lies, I think, in the fact that it shows very clearly the way in which a longitudinal fracture occurs in these cases. In the example before you there can be no doubt that it has resulted from the impaction of the lower into the

upper fragment. The force producing the fracture appears to have been applied through the articular surface of the head of the tibia, by the patient falling head first downstairs and striking her bent knee in the descent.

The specimen is preserved in the museum of St. Bartholomew's Hospital, Series iii, No. 990 (*a*). *December 20th*, 1887.

31.

A parosteal lipoma, or congenital fatty tumour, connected with the periosteum of the femur.

By D'Arcy Power, M.B.

The specimen which I exhibit to you this evening presents many points of interest. It is an example of the comparatively rare form of the congenital fatty tumour which grows from, or has developed an intimate relation with, the periosteum. To this form of tumour the term parosteal lipoma has been applied. The tumour was removed from the thigh of a boy aged 9 years, who was admitted into St. Bartholomew's Hospital under the care of Mr. Thomas Smith. The following notes were taken at the time of his admission:—"He has a soft, painless, and elastic swelling extending over the upper third of the left thigh, and along its outer aspect. The skin is freely movable over the tumour, but the superficial veins in this region are somewhat distended. The left thigh measures seventeen inches in circumference at its thickest part, whilst the right thigh at the corresponding point only measures fourteen and a half inches." The tumour was thought to contain pus, and was punctured with an aspirating needle; a small quantity of blood was alone obtained. An incision was subsequently made over the swelling, and the tumour was found to be fatty in nature, and to be firmly attached to the periosteum of the femur by a broad base which commenced immediately below the lesser trochanter. The line of attachment was so firm that considerable difficulty was experienced in removing the tumour. The patient made a good recovery except for a trifling secondary hæmorrhage which was readily controlled.

The tumour is large and irregular, weighing 15 oz., and measuring six inches by five. It is divided into several lobes which are held together by areolar tissue, but it is only partially encapsuled. Many pieces of muscular tissue are attached to the capsule in

different parts, but I believe that their presence is purely accidental, and that they are not in any way to be taken as indications that the tumour grew from the deeper intermuscular planes of connective tissue, only secondarily becoming attached to the periosteum. The growth is extremely firm, and consists of fat held together by trabeculæ of dense fibrous tissue. Microscopical examination confirms the naked-eye appearances, for the sections show collections of fat-cells, separated by thick bundles of connective tissue. There is no muscular fibre in the growth so far as I have examined it, nor does it appear to be undergoing any degenerative changes.

Parosteal lipomata are rare, and indeed the author of the article on tumours of bone in Ashhurst's 'Encyclopædia of Surgery'[1] only alludes to three cases of the kind, and states that "upon these three observations rests the belief in this variety of neoplasm." I imagine, however, that they are not so rare as this statement would imply, for accounts of similar tumours have been recorded, though I do not find them to be very numerous. Of these the most interesting to the Society are those alluded to by our President in his 'Lectures on Surgical Pathology';[2] and those exhibited by Mr. Thomas Smith in 1866 and 1868;[3] and by Mr. John Wood[4] in 1875. Mr. Butlin[5] too has written an instructive paper upon growths of this nature.

The points of especial interest about the growth are, that it is a congenital fatty tumour, and this in itself is extremely rare. Secondly, it is attached to the periosteum, a very unusual feature. Upon this point Mr. Butlin[6] says, "It seems very probable that such growths commence as fibrous or fibro-cellular tumours, and that the formation of fat is a later change, not very late perhaps, but occurring soon after the first appearance of the tumour, and proceeding almost collaterally with its growth. The large quantity of fibrous tissue contained in most of these tumours, the ill-developed nature of the adipose tissue as shown by the microscope, and the strange fact that nearly half the cases collected are stated to have been attached to bone or periosteum, sometimes

[1] Vol. vi, p. 980.

[2] Ed. i, Lond., 1853, vol. ii, p. 98.

[3] 'Trans. of the Path. Soc.,' vol. xvii, p. 286, and vol. xix, p. 344.

[4] Ib., vol. xxvi, p. 190.

[5] 'St. Bartholomew's Hospital Reports,' vol. xiii (1877), pp. 179—185.

[6] Op. cit., p. 184.

immediately, and sometimes by a fibrous pedicle, whilst several of them are stated to have actually arisen from bone, have led me to this belief. A less likely bed than the periosteum for the origin of a fatty tumour can scarcely be imagined, whereas it is one of the ordinary seats of origin of a fibroma." It appears to me, however, that there is no special reason why lipomata should not spring from the periosteum, for they are connective-tissue growths commencing as localised proliferations of cells which rapidly become infiltrated with fat.

The last point of interest which I shall touch upon in connection with the tumour is the fact that the capsule is deficient over the greater part of its circumference. The shaggy appearance of the diffuse portion of the growth contrasts well with the smooth outline of that which is bounded by a well-defined fibro-cellular coat.

The specimen is preserved in the museum of St. Bartholomew's Hospital, Series i, No. 436 (*a*). *February* 21*st*, 1888.

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