The wound in the abdominal wall was closed by means of two horse-hair stitches, and a drainage-tube introduced into it so as to aid the escape of any urine which might flow from the bladder-wound. Irrigation with corrosive sublimate solution (1 to 2000) was employed during the operation, and the wound and parts around were covered with a dressing of corrosive sublimate wool. The stone removed was about the size of a horse-bean, of uric acid formation. For the first thirty-six hours after the operation, the urine was slightly tinged with blood, passed principally by the abdominal wound; but, after this, it flowed through the catheter, which had been secured in the bladder.

Forty-eight hours after the operation both drainage-tube and catheter were removed, the patient not having had the slightest bad symptoms. For twelve hours after the removal of the drainage-tube and catheter, the urine came by the abdominal wound; but, after this, it passed almost entirely by the urethra, and the patient was running about the ward, perfectly well, on the tenth day after the operation.

It may be said that this is simply a suprapubic lithotomy, and so it is, but I maintain that it is a much less serious proceeding than the ordinary suprapubic operation, as the bladder is scarcely disturbed, and the wound made in it is very limited. Its advantages over lateral lithotomy are:—1. That the urethra, prostate, and neck of the bladder are left uninjured; 2. That it is a much more simple proceeding, and does away with the principal risks which have occasionally been encountered in performing the operation on children.

I confess that it requires a little manipulative dexterity to seize a small stone in a male child's bladder; but no greater dexterity is required in doing so than what every surgeon, professing to be an operating surgeon, should possess.

It is possible that in certain cases the same principle might be carried out, by bringing the stone to the neck of the bladder, opening the prostatic part of the urethra, and thrusting the blades of the lithotrite and contained stone into the perineal wound; but in the case of children there can, I think, be no doubt that the suprapubic method is preferable.

PARTIAL DISLOCATION OF THE HEAD OF THE RADIUS PECULIAR TO CHILDREN.

By J. HUTCHINSON, Jun., F.R.C.S.,

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IN the BRITISH MEDICAL JOURNAL of December 5th, 1885, is a short paper bearing the above title by Mr. S. H. Lindeman, in which the true nature of an obscure and frequent accident in early life is well described. Mr. Lindeman has done good service in calling attention to it, and I should hesitate before again referring to the subject merely to establish a priority of publication. But there are some points in the article which might with advantage be amended. In the *Annals of Surgery* for August, I gave a full account of the lesion, with illustrations, having been led, a year ago, to ascertain its true nature (by experiments on the dead subject), owing to the lack of a satisfactory explanation in any previous work.

The best way of regarding this accident is to remember that the orbicular ligament, which in adults strongly grasps the bony head of the radius, in young children has a weaker hold on the same part, which with them is cartilaginous. The nucleus for the head of the radius does not appear until the age of 5, and this limits pretty accurately the time up to which the lesion is commonly met with. In fact, I could not produce it upon the bodies of children much older than this. During traction on the hand, combined with supination, as, for instance, when the child is dragged along or lifted by the arm, the ligament is very liable to slip up. Its attachment to the neck of the radius (only a thin membrane, which I have ventured to name the sub-orbicular) may be at the same time torn through, though this probably does not happen in a large proportion of the cases. Thus the bone slips a very little downwards, and a very little forwards. Mr. Lindeman thinks it may reach the depression above the capitellum; this would, of course, be accompanied by marked deformity, which is, on the other hand, conspicuous by its absence. If it were not so, the true nature of the accident would not have been so long overlooked, and the lesion ascribed to a displacement of the fibro-cartilage at the wrist, etc. (see Tillaux's *Anatomie Topographique*, p. 549, and also M. Goyrand's work). Mr. Lucy has observed and kept notes for me of a number of cases at the London Hospital, and we can unhesitatingly affirm that the deformity at the elbow would be overlooked by anyone, even if acquainted with the real nature of the lesion. In fact, although a true dislocation, it is rather one of the ligament than of the bone. It is perhaps possible, by "strongly supinating and

pressing on the head of the radius," to reduce the displacement; but, in my paper, an easier and a surer way is described.

Gently flex to a right angle, or a little beyond that; at the same time, gently but fully pronate the forearm. By this method, if the case be one of the class described, the ligament will infallibly descend to its right place, again grasping the head of the radius. The descent is known by the audible click (Mr. Lindeman's "thud" hardly expresses it) which then occurs, and by the relief of the symptoms, although the child is sometimes too young to reveal the latter; but the surgeon may feel sure, on hearing the click, that the displacement is reduced. Mr. Lindeman says that it is very liable to recur; I think this is due to his method (supination and pressure) not always effecting complete reduction. We have, with reference to this point, charged the mothers to bring the child back if the symptoms recurred, and in no case have they done so. No splint is absolutely necessary, although it is certainly well to keep the part at rest for a time.

The reason why pronation and flexion succeed so readily, is probably to be found in the shape of the head of the radius. That part of it opposed to the curve of the orbicular ligament, in full supination, has a rectangular edge, whilst in pronation it is rounded off and less deep; hence the ligament easily slips over the latter edge when brought up to it by flexion of the forearm.

The frequency of this accident may be judged from the fact that, at the London Hospital, two perfectly typical cases have often been seen on the same day. Whereas formerly they were liable to cause doubt and were unsatisfactory to deal with, their nature and the method of reduction are now fully established. A few examples may be quoted from Mr. Lucy's and my own notes.

1. Sarah M., aged 2½, was admitted with left forearm semiprone and motionless, crying with pain on passive movement. The mother had pulled the child up by the hand, the forearm being semipronated and fully extended, an hour before. On full pronation and flexion a click was felt, and the symptoms disappeared. There was certainly no lesion at the wrist.

2. John B., aged 2 years, had been dragged from the floor by the hand. The child, a fat heavy one, cried, "let its arm hang and couldn't hold anything." The forearm was extended and semipronated; full flexion and pronation produced a click; the child ceased crying, and easy movements of the radius followed.

Dissection of Sprain of Elbow (reduced post mortem), showing the orbicular ligament displaced upwards, the head of radius forwards and downwards.

3. May F., aged 1 year, was admitted with her forearm bent and semipronated. One movement of flexion and pronation caused a click to be heard, and the child actively resisted any further manipulation.

4. A young child was diagnosed to have "an injury to the head of the radius," and its arm was bandaged to the side. During the next two or three days, she continually complained of pain in the

elbow. On her second visit, I fully flexed and pronated the forearm; the usual click was heard, and after that the pain and resistance on movement disappeared.

This accident may occur to any young child, and is probably, like fracture of the clavicle, one of the commonest lesions of the upper extremity in early life. Its true nature had almost been detected by Mr. C. Heath, Mr. Southam, and Professor Hamilton, but (so far as I can ascertain) not fully described until the publication of my paper.

REMARKS ON A CASE OF MANIA WITH PHTHISIS: PULMONARY FISTULA: DEATH: NECROPSY.

Read before the Dorset and West Hants Branch.

By P. W. MACDONALD, M.B. and C.M. Aberd.,
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In bringing this case before the meeting, I have been less influenced by the wish to say anything that is new than to place on record a very rare and complicated case.

L. S. was first admitted into the Dorset County Asylum in May, 1872. He was a plasterer by trade, single, and at the time of his death aged 35. His father and mother are living, and in the enjoyment of good health. He had six brothers, two of whom died in infancy, and one at the age of 18, from heart-disease; and five sisters, one of whom died at 20, from heart-disease. Those now living—namely, three brothers and four sisters—are strong and healthy.

On his admission in 1872, he was suffering from mental depression, with delusions. In conversation he was irrational, and in temperament irascible. He slowly improved, and was discharged recovered in December, 1873.

After a lapse of five years, he was admitted for the second time in October, 1878. The mental symptoms had returned in an aggravated form, and his bodily health was much impaired. For many months there was no improvement. In July, 1879, he was reported to be morose and self-absorbed, but, on the whole, more rational and intelligent. At times, he was liable to sudden outbreaks of maniacal excitement, when he was dangerous to himself and others.

On February 21st, 1881, he had a severe attack of hæmoptysis, bringing up nearly a pint and a half of blood and phlegm. On a physical examination of the chest, there was found advanced consolidation of the left lung, with a vomica at the apex. *Râles*, coarse crepitation, and pectoriloquy were heard. During the next week, he had several slight attacks of hæmoptysis; but, on March 18th, it was reported that there had been no return of the hæmoptysis for more than two weeks; and, though very weak, he was mentally more rational, and gaining in strength.

He was treated with cod-liver oil and the time-honoured expectorant mixtures. He slowly gained in strength; and, as he improved physically, his mind seemed to gain in tone and power. About this time, his family made a strong request to have him home, fearing he might sink from phthisis; and on May 17th he was discharged to their care, as mentally relieved.

His relations nursed him for over eleven months, when, as there was no improvement in his general health, and he had become maniacal and unmanageable, he was readmitted (April, 1882). On admission, it was found that his mind had deteriorated, and that he had lost much in strength. Mentally, he was irrational, apathetic, and delusional; and he was suffering from a severe cough, with profuse expectoration. The same treatment was adopted as when he was previously in the asylum; and at the end of six months there was such a decided improvement that, during the summer and autumn, he was employed on the farm.

During the year 1883, there was absolutely no change.

In April, 1884, the lung-disease showed signs of activity. The cough returned, and there was much expectoration. His lungs were, from time to time, examined; and I think I am right in saying that, at one time or other, every known sign and symptom of phthisis—not to mention the various indescribable symptoms, auscultatory and otherwise—were met with, and noted. He was feverish, thin, and pale; and the mental symptoms were aggravated. This might be termed the beginning of the end; for he did not again rally, mentally or physically.

In October, 1884, a very rare complication happened. On the 10th of that month, a small abscess was observed to be forming in the fifth costal interspace, on the left side, just beyond the cartilages of the ribs. The abscess increased in size, and on the 21st it spontaneously opened, when over a pint and a half of very offensive grumous-looking liquid ran out. There was free and direct communication with the

lung; for, when the patient coughed, air escaped by the newly formed pulmonary fistula. After this occurrence, he seemed much relieved. The cough was less troublesome, and there was not again any expectoration.

On the 22nd, his pulse was 74, weak and irregular; temperature (evening) 99.6°. His appetite was good, and his bowels regular. The wound was dressed antiseptically.

The cough returned at times, but no expectoration. Temperature varied, but at no time rose over 101°. The fistula continued to discharge daily large quantities of purulent material, which varied in colour and consistence. The offensiveness increased, and the colour changed from a dirty brown to a greenish brown, and towards the end was of a gangrenous nature.

On January 6th, there was much swelling and œdema of the lower extremities, penis, and scrotum. Like all costal abscesses, the discharge burrowed between the ribs and the skin, and caused two small openings at the lower edge of the sixth rib. His appetite was good at the last, and there was no intestinal derangement. He died on January 12th.

Necropsy, thirty-six hours after death.—The dura mater was normal. There were opacity and thickening of the pia arachnoid. The occipital lobes were small. The convolutions were regular, and well formed. The grey cortex was reddened, and showed punctiform injection. The white central medulla was soft. The basal ganglia were normal. The heart was normal; its valves were closed. The right lung was free from adhesions. In the anterior edge of the upper lobe, there were several small caseous nodules, otherwise the lung was healthy. On proceeding to remove the left lung, there was none to be found. The cavity, thus formed, was three-fourths full of grumous-looking material. By means of a cup and sponge, the liquefied lung was removed, and it seemed to consist of degenerating lung-tissue, caseous masses of various sizes, pus, fat-cells, etc.

After removing the purulent collection, not by any means an agreeable proceeding, nowhere could any of the lung be found, with the exception of a small collapsed piece behind the root of the lung, or, I should say, what remained of the root of the lung. The pleural space was obliterated, and the adhering pleural layers could not be removed from the chest-wall except in pieces. The vessels and bronchi forming the root of the lung were all plugged, the former by well formed fibrinated clots, which adhered to the epithelioid lining of the vessels, and the latter by clots of a fibrous nature. The bronchi were quite impervious to air.

In the fifth interspace, at a spot three and a half inches from the centre of the sternum, was a small opening that would admit an ordinary sized quill. This was the internal opening of the fistulous communication with the lung. The external opening was at the upper edge of the sixth rib, the course of the fistula being downward and backward. Close to the internal opening, the free surface of the thickened pleural layer was dark and granular. The skin around the external opening was hyperæmic, and had given way in one or two places, exposing the sixth rib, which was denuded of periosteum. The liver was large; its edges were rounded; the organ generally was soft, pale, and fatty. The kidneys were large, and in both the cortex was paler than natural. There were fibroid changes in the spleen. The intestines were normal; there was no ulceration. The pelvic organs were normal.

REMARKS.—I have endeavoured to curtail the clinical notes as much as possible, thinking that more might be gained from a general review of the symptoms and state of parts.

Though this patient had suffered from mental aberration for many years before symptoms of pulmonary disease were known to be present, I am, nevertheless, inclined to class it as a case of mania associated with phthisis. The history of the case bears out this view.

From the first, he was irritable, excitable, and suspicious; and, as the case advanced, symptoms of dementia predominated. In this case, as in most others where mental derangement co-exists with lung-mischief, the insanity commenced insidiously. His relations say that the insanity was caused by a severe beating about the head; but after death I failed to find a single sign, macroscopically or microscopically, to favour this view; and I do not think that there was any connection, as to cause and effect, between the beating and the insanity.

Dr. Clouston says that phthisis is entirely latent in between one-third to one-fourth of all the cases among the insane; and, in almost all the others, it is latent for a considerable time.

On inquiry, we ascertained that the cause of death, in the case of the brother and sister who died, was phthisis, and not heart-disease. We also learned that there was a maternal history of lung-disease.

Having, then, obtained reliable evidence of a strong hereditary predisposition to pulmonary disease, and bearing in mind the latency of