

ture 100.2°; face flushed, nostrils dilating; laryngeal breathing and cough.—5.15 P.M.: Severe attack of spasmodic breathing; duskiness of face and partial insensibility. These symptoms passed off on raising him in the bed, and his breathing became more natural.

5th.—10 A.M.: Reported to have had a second severe attack of orthopnoea in the night; is now slightly easier; pulse 125; temperature normal. Took his breakfast; has expectorated some pure pus unmixed with air-bubbles; lies on his right side; rapid emaciation since admission; pupils normal. On listening over the centre of manubrium a loud amphoric sound is audible, resembling air passing through a narrow tube; second sound of heart sharp and flapping. To have ethereal tincture of lobelia, 160 minims; iodide of potassium, eighty grains; camphor water to eight ounces: one ounce every four hours.—9 P.M.: Pulse 120; temperature 99°. At 2 A.M., while sitting up in bed, he suddenly called out "Jack!" to a fellow-prisoner, fell backwards, and expired.

*Autopsy, eighteen hours after death.*—Rigor mortis; body rather thin, but strong frame. On removing the sternum, a tumour was visible, projecting forwards slightly to the right of the median line, and occupying a position opposite the first, second, and third ribs; it was not adherent to the sternum, and there was no sign of erosion. Right lung adherent to the walls of the chest; left lung free. On opening the pericardium, a large quantity of clotted blood was found. The left vena innominata was pushed forwards in front of the tumour; the right occupied its normal position. The innominate artery arose from the upper and anterior part of the tumour, was pushed over to the left side, crossed the trachea obliquely, and immediately divided into carotid and subclavian. The left subclavian and carotid were somewhat pushed forwards and slightly elongated, but soon assumed their normal position. About half an inch below the part where the pericardium is reflected from the aorta and pulmonary artery, and to the right and somewhat behind the ascending part of the arch, was a small triangular opening, containing a clot of fibrine, where the tumour had given way. The ascending aorta and pulmonary artery were incorporated by a thickening of the visceral pericardium. The right division of the pulmonary artery passed behind the tumour, and was somewhat encroached upon. On opening the tumour, it was found to consist of a large sac, commencing at the termination of the ascending aorta, and involving the whole of the transverse part of the arch. The posterior wall was filled by a dense mass of laminated fibrine, firmly adherent and an inch thick. The ascending aorta contained no fibrine, but was dilated, and a pouch existed on the right side, immediately above the valve—apparently a dilatation of the corresponding sinus of Valsalva. The channel of the blood was in front, and the vessels arising from the transverse part of the arch were pervious, the deposit of fibrine being just posterior to their orifices. The thoracic aorta was thickened and atheromatous. The part where the tumour had given way contained no laminated deposit, being very thin, and directly in the current of the blood. With some difficulty the whole of the laminated fibrine was removed; and it was then discovered to be a true aneurism, all the coats of the vessel being intact. On removing the viscera of the chest, and dissecting from behind, the œsophagus was found to be flattened by the tumour, which was about the size of a small coconut. The left bronchus was much compressed; the right was free. There was also some pressure upon the bifurcation of the trachea. The left recurrent laryngeal nerve was involved in the tumour, or, rather, was compressed between it and the structures occupying the concavity of the aortic arch; it then passed up along the posterior surface. The trunk of the right pneumogastric passed down upon the posterior surface of the tumour. There were no signs of pressure upon the vertebræ.—Heart: Pulmonary valves healthy; right ventricle thin and rather dilated; left ventricle normal; aortic and mitral valves competent, the former a little rough. The muscular tissue was firm and normal under the microscope.—Lungs: The upper lobe of the left lung was bloodless, pale, and emphysematous; the lower lobe congested. Pus escaped from the cut bronchial tubes; slight roughness of the pleura at the base from old pleurisy. The right lung was crepitant and engorged. No emphysema, except at the anterior border of the middle lobe; no bronchitis. The liver, spleen, and kidneys were healthy.

For the following remarks I am indebted to Mr. Gover, the senior medical officer:—

In this case the symptoms and signs were those, not of an aneurism, but of an intrathoracic tumour, the result of nature's attempt at a cure. The case proves that a healthy condition of the heart is compatible with the near neighbourhood of a vast aneurism, and in this respect it tends to support the views of Hayden, Corrigan, and Stokes. The posterior direction of the aneurism explained the entire absence of thrill, pulsation, and murmur; but the absence of pain due to pressure on sentient nerves is not so easily accounted for. Dr. Hayden, in his learned and elaborate work on "Diseases of the Heart and of the Aorta," calls attention to the importance of a double sound over a limited portion of the vertebral column as in the highest degree suggestive of aneurism; but even this sign was absent, although the aneurism tended posteriorly. The obstruction of the left bronchus was nearly if not quite complete, and this forms an instructive and unusual feature in the case. Dr. Hayden considers that defective expansion of one side of the chest is not of much diagnostic value, and Dr. Stokes states that he has never met with an example of complete occlusion of a bronchus by the pressure of an aneurism. And yet it is certain that cases of aneurism occasionally occur in which the symptoms are, at first, limited to those produced by pressure upon the trachea or bronchi. In this instance the occasional laryngeal spasm and the absence of respiration on the left side allowed of an approximate diagnosis as to the seat of the disease, but its nature was left an open question. In estimating the difficulties of diagnosis, it must be remembered that only a few days before death this man had been received as being fit for imprisonment with hard labour. When examined, shortly after his arrival, the physical signs were those of compression of the trachea or bronchi, with high-pitched dulness over an area which was certainly suspicious. It was only towards the last that symptoms of laryngeal spasm were added to those of compression; and this, as pointed out by Dr. Hayden, is the usual order of events.

## NOTES OF A CASE OF EMPYEMA.

By REGINALD G. ALEXANDER, B.A., M.B.,

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THE following fatal case presents some interesting features in consequence of the destructive ulceration which took place soon after paracentesis thoracis had been performed, and which destroyed, in several parts of the chest, the intercostal muscles, the pleura costalis, and skin, leaving large holes through which three fingers could easily be passed and the thoracic viscera reached and touched. This state of things lasted for more than a month, with much less constitutional disturbance than might have been expected.

The patient, M. N.—, came to consult me in March, 1872, after an illness of six weeks, during which he had complained of anorexia, cough, night-sweats, and loss of flesh. He spoke in a hoarse whisper, and had, in fact, all the symptoms of laryngeal phthisis; but under appropriate treatment (chiefly directed towards improving the general health) he recovered, gained many pounds in weight, declared himself quite well, and continued so until the 18th of December, when, after exposure to cold, he awoke in the night with acute pain in the left side, rigors, and dyspnoea so severe as to prevent him from calling his friends. Unfortunately he did not at first call in his medical attendant, and he only came under my notice on Jan. 11th, 1873, when he complained of pain in the left side and dyspnoea. The left side measured an inch and a half more than the right; the whole lung was dull upon percussion, and there was total absence of respiratory murmur throughout its whole extent. Temperature 101°; pulse 106. Linseed-meal poultices ordered, and a saline diaphoretic with compound tincture of camphor, from which great relief was obtained; but paracentesis thoracis could not be performed as the patient lived in an out of the way district.

Jan. 19th.—A sudden accession of pain with rigors came

on (the symptoms pointing to the formation of pus within the cavity), and distinct fluctuation being felt at a spot two inches to the left of the left nipple and four inches below it, a trocar was introduced (the opening being made valvular), and three pints of pus were discharged, without causing the least faintness, dyspnoea, or other bad symptom. The temperature at the time of operation was  $101^{\circ}$ , pulse 120, and very feeble. A large quantity of pus was discharged into poultices, and objection was raised to washing out the pleural cavity. Iodide of potassium, quinine pills, and cod-liver oil were ordered. The appetite of the patient and his general condition improved considerably; the cough was slight, with mucous expectoration.

Feb. 2nd.—The patient declared himself better, and could lie on the right side; slight cough; appetite good; temperature  $101.2^{\circ}$ ; pulse 130.

9th.—The discharge continued; patient weak, but appetite good; temperature  $102^{\circ}$ ; pulse 130. The discharge became very offensive, and an ulcerative process commenced, which destroyed the pleura costalis, intercostal muscles, and skin, progressing from within outwards, and ultimately producing several large holes on the anterior surface of the left side of the chest, through which the finger could be easily passed.

March 3rd.—The ulceration advanced; the right leg became œdematous and an enormous size. Ordered warm sponging, a diuretic mixture, and the raised position for the leg.

16th.—The œdema of the leg disappeared entirely; temperature  $101^{\circ}$ ; pulse 130, very feeble and sharp. Ordered wine, milk, eggs, all of which the patient took well.

30th.—Aphthæ in the mouth. Ordered the glycerine of borax, and an acid mixture of dilute nitro-hydrochloric acid with tincture of nux vomica three times a day.

April 3rd.—Aphthæ gone; temperature and pulse high; the holes in the chest-wall increased in size; three fingers could easily be passed into the thorax and the viscera touched. The pus had a gangrenous smell, but the breath was untainted.

7th.—Ulceration extended; *the ribs left bare*, and the cartilages exposed to view; *the lung plainly visible*. The patient ate and slept well, and declared that "but for the holes in his chest" he would soon be well. He began to spit pus. Temperature  $102^{\circ}$ ; pulse 130.

10th.—The tissue-destruction increased; appetite good, but the patient began to despair of recovery.

11th.—Became suddenly worse; intense pain in both sides of the chest and abdomen; possibly perforation of the diaphragm. He died after twelve hours' great suffering. No post-mortem examination could be obtained.

Remarks.—The patient had always a bad aspect, but apparently a strong constitution, and it was a matter for regret that objection was raised to the introduction of a drainage-tube and the frequent washing of the pleural cavity with warm water containing Condyl's fluid, &c., which might have prevented the gangrenous ulceration and caused the case to terminate favourably, as in two instances which have subsequently come under my notice. It is curious, however, to note how long a person can live in the sad condition to which this young man was reduced, and the practical deductions to be derived are—1. That there is little risk to the life of the patient, and small amount of discomfort experienced by him, in the operation of paracentesis thoracis, even when performed by a simple trocar and canula in place of the aspirator, and at a point of the chest by no means the seat of election. 2. That the danger of the free admission of air into the pleural cavity has been overrated in its *rapid evil effects* upon the vital powers.

Bradford.

## EXCISION OF THE ELBOW-JOINT.

By WALTER RIVINGTON, M.S. LOND., F.R.C.S. ENG.,  
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THE excellent results obtained by Mr. Maunder by the method of operating which he recommends are no doubt correctly attributed by him to preservation of the natural relations of the triceps to the fascia of the forearm and anconeus muscle. The first surgeon who pointed out the advisability of avoiding transverse incisions across the triceps and

the fascia appears to have been Dr. R. Hodges, of America, as stated by Mr. Bryant in his work on the Practice of Surgery, and this was some years previously to the inculcation of the same doctrine by my colleague Mr. Maunder. In mentioning this fact I have not the least desire to detract in any way from the credit justly due to Mr. Maunder, for it is probable that but for the greater prominence which he has given to the improvement it might have been confined to a small circle of operators. I think, however, that Dr. Hodges's claim should not pass without some recognition. Other surgeons, too, who have been in the habit of adopting the method of excision of the elbow by a single straight incision through the triceps and fascia down to the bone, have, consciously or unconsciously, retained the relations of the triceps and the fascia, together with the anconeus. In point of fact, the relations could not well be disturbed. It is only where a H- or —-shaped incision is adopted that this can happen. Even with these methods very good results may be obtained in some cases.

In January, 1872, I operated on a smith, fifty-four years of age, for rheumatoid disease of the left elbow-joint, attended with great infiltration of the tissues of the arm and forearm. The parts were so brawny, thick, and inelastic, at the time of operation, that I was obliged to make a transverse incision through the fascia and triceps on the outside in order to obtain access to the bones. The ultimate result was all that could be desired. The patient could have knocked anyone down by the action of the triceps alone. He was unfortunately nearly blind, and could not follow his occupation. For three years he remained perfectly well. In the spring of the present year he injured the arm, and an attack of inflammation ensued, with formation of an abscess over the new joint. A small sinus at present exists, and the arm is weakened, but the power of extension remains.

In another case, occurring in 1871, in which I had operated by the straight incision, without knowing the particulars of Mr. Maunder's method, the persistence of a sinus after operation led me ultimately to divide the ligamentous union of the bones, with the triceps and fascia, transversely. The sinus closed by granulation, the bones, triceps, and fascia reunited, and the lad had a perfect arm. The case was one of synovial disease of long standing, and the triceps was atrophied before operation. Not many months ago I met the boy in the street, where he demonstrated flexion, extension, pronation, and supination to me, and stated that the limb was in every way as good as its fellow.

I mention these cases (which were shown to the Hunterian Society) to prove that, although it may be better to adopt the straight incision with the precautions insisted on by Mr. Maunder, yet equally good results are obtainable even when the triceps and fascia have been subjected to an additional transverse incision. In only one case have I employed the H-shaped incision. The triceps was atrophied, there were several sinuses, and the patient was so unhealthy that I advised amputation; but as the friends would not consent to the removal of the limb, I practised excision. The ultimate result I do not know, as the patient was sent to the seaside, and I have not seen her since. Under any circumstances, the wasted state of the triceps, which was of a pale yellow colour, would have probably precluded the restoration of extending power. Mr. Maunder was fortunate in meeting with a patient suffering from accident, and not from disease, and therefore with a triceps in a perfect state of efficiency. He was also fortunate in meeting with a patient capable of winning a billiard match. Had either of my patients been similarly gifted, he would have been equal to the occasion. Nevertheless, I fully admit the value of Mr. Maunder's demonstration of the *rationale* of the straight incision, and believe that the straight incision should be practised wherever it is possible to do so.

Finsbury-square.

## WEST KENT MEDICO-CHIRURGICAL SOCIETY.—

The second meeting of the session was held at the Royal Kent Dispensary, Greenwich-road, on Friday, November 5th, Dr. J. N. Miller, president, in the chair. Dr. J. Braxton Hicks brought forward some cases illustrating the effects of large doses of quinine in some cases of puerperal fever. The next meeting will be held on Friday, December 3rd, at 8 P.M. precisely, when Dr. Tilbury Fox will read a paper.