time before, delivery, was charged with the material of erysipelas; that though there was no external expression of the disease, she by contagion, and probably by infection, gave it to the nurse, and that she poisoned my finger at the time of her labour, and that I communicated it—in a slight degree, it is true—to Nos. 75 and 76. The catheter was a ready method of communicating mischief in two cases.

The poisons of scarlatina and erysipelas did not produce those diseases as such, but virulent septicæmia. I have no case of the specific rash of scarlatina, doubtfully excepting one—that of a lady who, during pregnancy, had been visiting cases of scarlatina, and who had a rash like scarlatina on the third day after delivery, and who died on the sixth day. I was not then acquainted with the efflorescence seen in some cases of septicæmia, and I now hesitate to which class to refer it.

The cases show that septicæmia sometimes follows forceps deliveries. This is no more than we might fairly expect on surgical grounds. The contingency applies to all obstetric operations. It is satisfactory, however, to find only one death from fever after instrumental interference: that of craniotomy for hydrocephalus.

It will be observed that there is a marked difference in the duration of the cases fatal by septicæmia and pyæmia. In the former, a few days; in the latter, all died in five weeks from the time of delivery.

After thus briefly telling what the cases show, the next important lesson is, What do they teach? They teach this: that, in some instances, mischief, even unto death, arose from preventable causes, viz., intestinal irritation, in default of previous attention, from the hand tainted with the virus of a *post mortem* examination, from the fingers poisoned with the matter of a scarlatinous abscess, or reeking with the venom of malignant erysipelas. These lethal causes, and all such like, may and must be avoided, if we are for the future to practise our profession in peace, quietness, and safety. Endemic influences must be counteracted as well as may be, operative measures avoided when practicable; and the whole physiology of labour and the pathology of its sequences must be carefully observed and ministered to with patience, with a definite aim, and with clean fingers.

I have used all the preventive means I knew—habilitmentary, detergent, and antiseptic. When scarlatina has broken out in a family where the lady was pregnant, I have recommended her to go away to be confined, as we all know with what pertinacity the poison of scarlatina sticks to a house or to a room. I have avoided, as far as possible, attending cases containing the elements of septinous contamination, and I have never been obliged to cease from practice, even for a limited period.

Before just running over the principles of treatment, it may be useful to compare puerperal fever, the unity of its cause (some septinous material) and the non-uniformity of its results, with some other common agent, and the diversity of its effects. Let us take one with which we are just now familiar: that of the cold of last winter.

We have nothing to do now with the annihilation of function produced by extreme cold, as of a flock of sheep being found dead in the morning after premature shearing, or of a rabbit denuded of its fur. A coat of varnish has nothing to do with the event; they are frozen to death. What I refer to are those lesser perturbations of the system, spoiled functions, with all their noxious entail, not consequent on a cold, but dependent on the cold.

What were they? Affections of every region of the body, from the head to the feet; convulsions, coma; inflammation of tonsils, pharynx, larynx, trachea, bronchi (rarely of smaller tubes), lungs, pleura, stomach, rheumatic fever (so-called), and neuralgias everywhere; as usual, extremes of exposure and extremes of susceptibility must be taken into account.

Observing these every day occurrences, how can the effects of poison introduced into, or generated in, a puerperal woman, be expected to be uniform?

I should like to know how members treated all these various affections during last winter. If a remedy were sought for each organ affected, your therapeutic resources must have been pretty well exercised. For my part, I treated them all alike, on general principles.

So in puerperal fever, turpentine, internally and externally; breathing an iodised atmosphere; opium and quinine, with, of course, proper food, air, and stimulants, etc., do best what can be done, on the same general principles; modified, of course, by the cause.

Quinine, according to Dr. Richardson, counteracts the different poisons in their power of liberating oxygen, his theory of their bane.

Salicine is allied to quinine, and is given as its substitute. Salicine is obtained (analytically) from the willow tribe, the meadow sweet, and winter green.

Salicylic acid is found to be the most effectual disinfectant. It can be made, also, and commercially it is so made—synthetically—by the action of carbonic acid on carbolic acid.

This alliance between quinine, salicine, salicylic acid, and carbolic acid, strikes me as at least curious, and possibly may have a more intimate relation with the success of these substances in the treatment of puerperal fever and such like diseases, than we are at present aware of.

INTRATHORACIC TUMOURS.*

By J. W. F. SMITH-SHAND, M.D.,

Physician to the Aberdeen Royal Infirmary, etc.

I.—PRIMARY CANCER OF THE LUNGS. (Concluded from page 845 of last volume.)

CASE II.—In the next case I shall bring before you, I have no positive proof to adduce in support of my diagnosis of primary cancer of the lung, although I think I have strong presumptive evidence in its favour. George McKenzie, aged 28, a coachman, was admitted into the Royal Infirmary on July 1st, 1872. The patient stated that he enjoyed good health till last winter, when he was exposed to cold and wet, but he was not confined to the house in consequence. He noticed after this, however, that his breathing was short after any exertion, and that he had a short dry cough. He never had any pain in the chest, and he could lie on either side in bed. About a fortnight ago, his cough became much more troublesome, and he had a white frothy expectoration. There was no hæmoptysis.

Condition on Admission.—The patient had a puffy bloated appearance, with lividity of lips and cheeks, and lay in bed with his head and shoulders raised. There was slight fulness of the jugular veins. There was deficient movement of the left chest, with dullness on percussion in the lower half, and absence of breath-sound and fremitus. A subtypanic note was heard in the left infraclavicular region. There was puerile breathing on the right side. The heart-sounds were best heard to the right of the sternum. Pulse irregular, 125 per minute. Bowels costive. The urine was scanty, of specific gravity 1030; contained no albumen. Temperature 103 deg.—July 6th. There was dullness over the whole left chest, with absence of breath-sounds, except on deep inspiration, when distant feeble breathing was heard. The left hand and arm were œdematous.—July 8th. The nurse stated that he had been confused and delirious the previous night. The œdema of the arm had increased, and there was marked swelling of the left side of the face and neck. On inspection, the left side of the chest was smaller than the right, and the infraclavicular region was flattened. The heart-sounds were heard more to the right of the sternum. There was no change in the other physical signs. He expressed himself as feeling easier. The left pupil was slightly more dilated than the right. His voice was rather husky. He said that of late his voice had altered in character, and had not been so clear as formerly. About 3 P.M., he fell into a heavy sleep, from which he could with difficulty be roused. The stupor gradually became more profound, and he died at 6 P.M. The last two days, his urine was copious, as he passed three pints in twenty-four hours.

Strong efforts were made to obtain a *post mortem* examination, but they failed. All that I could venture to do was to insert a trocar into the chest in the axilla. Considerable resistance was offered to the passage of the trocar, as if it were passing through some dense firm substance, and when the trocar was withdrawn, nothing followed, except two or three drops of bloody serum.

REMARKS.—The existence during life of well marked inward pressure signs on the left innominate vein in this case, and the result of the exploratory examination after death, conclusively prove that the dullness on percussion was due to a solid tumour, and not to fluid. It is a clinical law laid down by Walshe, that evidences of pressure on internal parts, as the aorta, arteries, veins, nerves, trachea, bronchi, œsophagus, or thoracic duct, are solely due to tumour, whatever its nature may be, and that neither hydrothorax, pneumothorax, or empyema can produce them. There can be little doubt also that the obstruction to the venous circulation was the cause of death, by inducing stupor and cerebral congestion. The only point to decide is, whether the tumour was aneurismal or cancerous. My reasons for fixing on the latter were the absence of pain and impulse, and the evidence of slight displacement of the heart to the right side.

In this case, the left chest was flattened and smaller than the right, while in Mackie it was enlarged, as judged by the eye. Dr. Walshe, in his last (fourth) edition of *Diseases of the Lungs*, states that, when there is simple cancerous infiltration associated with limited tuberculous formation, the affected side is either retracted or depressed, but that, when the cancer of the lung is mainly tuberculous, the diseased side is generally

* Read before the Aberdeen, Banff, and Kincardine Branch.

but not uniformly enlarged. In Mackie's case, I unfortunately did not measure the two sides of the chest; but my decided impression was, that the left was considerably larger than the right. I, therefore, wrote to Dr. Walshe, asking him whether he did not think it likely that an infiltrated pulmonary cancer weighing close upon five pounds would produce enlargement of the affected side. In the reply with which he kindly favoured me, Dr. Walshe said that he had never seen a case of primary infiltrated cancer where the pleura was demonstrably free from the disease, in which the effect was not a contracting one, if the dimensions of the side were affected at all. But he said he could *à priori* conceive that, in a case of rapid quasi-general infiltration with encephaloid disease, enlargement of the lung and slight expansion or bulging of the side might take place. He shows, in his work, that, in acute pneumonia during the stage of red hepatisation, enlargement of the side may occur; and I have little doubt that, in rapid cancerous infiltration going on to any extent, the same result would ensue. From Dr. Walshe's extensive experience and opportunities of observation, great weight must be attached to any statement of his on the subject, and it may doubtless be the case, as he says, that, in simple cancerous infiltration, the general effect is a contracting one; still it will be well to bear in mind that it is quite possible that, in certain stages of the disease, or in cases of rapid growth, an enlargement of the side may be produced. And Aviolat, as quoted by Cockle, is of opinion that, in the early stage of cancer, there is a slight though decided augmentation in size of one side of the chest.

Cancer of the lungs is a disease of adult life, and is said to occur much more frequently in the right than in the left lung, and amongst males than females. Out of 39 cases collected by Dr. Risdon Bennett, however, 19 were females and 20 males; the left lung was involved in 14, and the right in 9, both lungs being affected in the remainder, or the disease was confined chiefly to the mediastinum.

Of the two forms, the medullary and scirrhous, the first is by far the most common. It may be met with in the form of small granular masses, like miliary tubercles, or, which is more common, in larger masses isolated from each other, with healthy lung-tissue intervening. It was formerly supposed that cancer may be infiltrated into the air-cells, the lung-tissue being entirely converted into cancerous matter. This form, Rokitsansky says, is rare, and when it occurs, it is the result of a pneumatic process. This view, however, of the conversion of an infiltration into cancer, says Niemeyer, has been abandoned; and it is now believed that, in the origin of infiltrated cancer, after the transformation into cancer-cells of a few of the connective tissue-cells of the matrix of the lung, this conversion is propagated into the neighbouring connective tissue and into the connective tissue-cells of the adjacent alveoli. The air-cells may be filled, but this is not as the result of a true exudation.

No more need be said at the present time on the histology of cancer while the controversy rages between Virchow, Forster, and others, who believe that the connective-tissue corpuscles form the matrix from which cancer springs; and Thiersch and his supporters, who hold that cancer can only originate from epithelial structures. And, as Rindfleisch remarks, the histology of cancer of the lung, more especially from the great rarity of the disease, is still in its infancy.

II.—ANEURISM.

The second portion of my paper will be mainly devoted to the consideration of some of the physical signs and symptoms produced by this aneurism, which I now show you. The notes of the case are as follows. John Jaffray, aged 43, seaman, and a native of Aberdeen, was admitted into the Royal Infirmary on July 22nd, 1871.

Previous History.—The patient had been in the way of coming to hospital for the last four years to be treated for secondary syphilis (chiefly periostitis), which was always speedily cured by five-grain doses of iodide of potassium, and he had been able to follow his employment till March of the present year. He stated that he had been subject to a cough for a good many years; that for nearly a year he had had difficulty in swallowing, especially liquids; and that, in January 1871, his cough being then bad, he became affected with hoarseness and loss of voice. In March of the same year, he was a month in hospital with periostitis of the right tibia, which was cured by treatment; but, after this, he was not able to work, owing to shortness of breathing and pain in the breast. The pain in the breast becoming worse was the cause of his again entering the hospital at the present time.

Present Condition.—July 23rd. The patient, who was a dark-haired, brown complexioned man, had lost flesh considerably since he was in hospital in spring. He complained severely of a dragging pain in the left hypochondriac region, and of shortness of breathing, and he lay habitually on his right side. On inspection, the chest was well formed, and

nothing abnormal could be detected in the heart or lungs by auscultation and percussion. The sputum was frothy, slightly mucopurulent. The right pulse was weaker than the left. The urine was natural. His digestion was bad; the bowels costive. There were no inequalities of the pupils. The sight was dim, except for distant objects. He was ordered iodide of potassium, steak diet, and stimulants.—August 25th. The patient had not been examined particularly for some time till to-day, when the following points were ascertained. On inspection, there were flattening and diminished chest-movement in the left infraclavicular region, and slight bulging in the left hypochondriac region. The heart's apex beat in the fourth intercostal space, immediately below and to the inner side of the left nipple. The impulse was visible in the left mammary and infraclavicular regions, and there was slight pulsation at the sternal notch. On percussion, there was dullness over the left clavicle and infraclavicular region anteriorly. The percussion-note was clear, almost tympanic, in the left hypochondriac region. There was dullness over the left back. The area of hepatic dullness was diminished. On auscultation, the breathing on the right side was harsh generally; on the left side anteriorly, it was faint, with slight blowing expiration in the left infraclavicular, mammary, and axillary regions. There was absence of breath-sounds in the hypochondriac region. Posteriorly, the breathing was faint on the left side with blowing expiration in the supraspinous region. The heart-sounds were weak but normal.—August 31st. The patient coughed up two or three mouthful of dark blood. The pain in the chest and the dysphagia had gradually gone. Slight hæmoptysis occurred now and again, and the sputum was on one occasion examined microscopically, but no other cells were seen than the normal blood-corpuscles.—After September 1st, no notes of the case were kept, as I was absent from home for a few weeks; but there was little change in the patient, except that he became gradually weaker, and that the flattening of the left side of the chest became more marked.—On October 4th, profuse hæmoptysis occurred, and he died suddenly that day.

Post Mortem Examination.—October 5th. (Reported by Dr. Rodger, pathologist.) The heart was adherent to the pericardium. Its valves and cavities were healthy. It was much congested on the right side, as were also the veins leading to it. The right lung was congested and oedematous; the left lung was closely adherent to the chest-wall, and compressed. At the root of the neck, the whole of the arch of the aorta was aneurismal from in front of the innominate artery to its posterior termination—the left bronchus and the left recurrent laryngeal nerve being considerably compressed by the enlargement. The thoracic aorta was more or less dilated throughout its whole extent; and, immediately above the diaphragm, there was another smaller aneurism projecting to the left side, but there was no excavation of the bodies of the vertebrae from the aneurism, and neither of them had ruptured—the immediate cause of death being hæmoptysis from congestion of the lung, and suffocation. The liver externally was covered with patches and bands of tough lymph from previous perihepatitis, and the liver itself was very much distorted and deformed in its lobulation; the gall-bladder being placed at the extreme right margin of the organ, the right lobe being almost wanting, and the quadrate, Spiegelian, and left lobes very irregularly and enormously enlarged. The spleen was normal. The kidneys had the tubules of the cortical substance much loaded with inflammatory desquamative deposit, but not much degenerated.

REMARKS.—I must admit that this case puzzled me a good deal, and that, although I was divided in opinion as to its being a case of aneurism or of phthisis, my impression latterly was strongly in favour of its being cirrhosis or syphiloma of the lung, with a syphilitic affection of the larynx. Doubtless the severe pain and dyspnoea, the loss of voice and dysphagia, together with the impulse and pulsation in the left mammary and infraclavicular regions and at the sternal notch—slight though they were—the hæmoptysis and the inequality of the two radial pulses, seemed to point very clearly to aneurism. At the same time, it has to be remembered, that there was a history of syphilis and of long-standing cough; that the patient soon afterwards, being unable to work, began to lose flesh; and that shortly after this there was evidence of flattening and diminished chest-movement on the left side, with dullness on percussion.

It has also to be noted, that the apex-beat was higher than normal, and that this fact, as also the impulse in the upper portion of the left chest, and the tympanic note in the left hypochondrium, was explained by the contraction of the lung, and displacement of the heart and stomach, which are seen in cases of phthisis, and notably in cirrhosis. There was no heaving character about the impulse, and the seat of the pain referred to the left hypochondrium was unusual for aneurism, and may have been produced by periostitis, or by the second aneurism above the diaphragm. It was most probably produced by

the latter cause, and the disappearance of the pain and dysphagia may have depended upon a change in the direction of the protruding forces. As there is said to be a connection both between syphilis and aneurism, and syphilis and cirrhosis, the previous history in this case could be of no decided value in the diagnosis. Hæmoptysis as a symptom is common to phthisis, cancer, aneurism, and cirrhosis; but, in the latter disease, it appears to be more rare than in the other examples.

It may be briefly stated in conclusion, that, in the differential diagnosis of intrathoracic tumours, the most valuable of all the symptoms seems to me to be *pain*, and that, in doubtful cases, when severe pain is complained of, it is much more likely to be dependent on aneurism than on cancer.

DENTIGEROUS CYST IN THE UPPER JAW.

By A. W. STOCKS, M.R.C.S.,
Surgeon to the Salford Royal Hospital.

R. D., AGED 18, a healthy-looking girl, residing at Morecambe, came under my care for the treatment of a tumour occupying the right cheek, forming a projection into the nose, filling up the canine fossa, projecting outwards under the malar eminence, and encroaching on the mouth. In the latter position, it was found to occupy the space of the right lateral incisor, canine, and first bicuspid teeth, which were wanting. The alveoli corresponding to the former two were found to be dilated (for, although three teeth were absent, yet there were to be found only two alveoli), and the edges of the alveolar plates could be distinctly traced, having projecting through them a soft semifluctuating tumour, on the surface of which ramified numerous large veins. The movement of the upper lip was considerably interfered with. The tumour had existed for about three years. The appearance of the girl's face was peculiarly that produced by a dilatation of the antrum of Highmore. There was not much pain, and the voice was rather nasal. An exploratory puncture through the dilated alveolus by means of a cannula and trocar let out a small quantity of bloody serum. No distinct fluctuation could be made out between the most prominent parts of the swelling and the projection into the mouth.

On November 12th, 1874, the cheek having been raised from the front of the upper maxilla (under chloroform) without any wound of the external skin, the tumour was easily perforated by a gouge, and the opening enlarged by a pair of nibbling forceps sufficiently to admit the finger into the antrum, which was found to contain a clot of blood and some serum, the former being the result, no doubt, of the late exploratory puncture. On passing the finger into the cavity, a hard pointed substance was found projecting from the roof of the antrum, about a quarter of an inch from its posterior wall, and, after a few forcible but vain attempts, a fully developed canine tooth was removed by the forceps. The cavity was filled with lint and the patient sent to bed. Her progress towards recovery was uninterrupted, and, on January 16th, there was only a slightly fistulous orifice at the junction of the lip with the upper jaw. The distortion, which continued as great as before the operation, has been much reduced by pressure obtained by wearing a small India-rubber ball firmly bandaged on the cheek during the night; and the projection into the mouth has shrunk very much; indeed, now there is scarcely any distortion left.

The tooth which was removed from its abnormal position is in all respects a well developed canine (permanent) tooth measuring barely four-fifths of an inch, the crown being exactly three-tenths of an inch long. The fang, however, instead of having a smooth surface similar to that found in most teeth, is surrounded by a firm deposit of bone, giving one the idea that it was not implanted in an ordinary alveolus or socket, but rather ankylotized to the bone in which it was found. It appears that, some time ago (how long she could not say), according to the girl's statement, she had her "eye-tooth" on that side removed; that it was a "sucking tooth"; and that the corresponding tooth in her permanent set never appeared. The lateral incisor and first bicuspid teeth were extracted at a much later period, with a view to the cure of the tumour. How the tooth got into the position in which it was found, is very difficult satisfactorily to explain; but it would appear not improbable that, in the extraction of the primary tooth, some damage had been done to the pulp of the secondary tooth, and that the germ had been lifted out of its normal position and carried, so to speak, on the top of a cyst formed by a morbid secretion in the dental sac, through the antrum, and so taken root in the orbital plate of the superior maxilla, where it was found.

The case mentioned in Bryant's *Surgery*, page 279, is somewhat similar to the above, save that in it the tumour was formed by a solid instead of a fluid growth. The engraving on the same page gives very fairly the peculiar external appearances of the above case.

CLINICAL MEMORANDA.

HEMIKINESIS.

In reply to Dr. Clay Shaw's remarks, I would say that I have not introduced the term hemikinesis for any *one* mobile disorder. In the report from my hospital practice to which Dr. Shaw refers, it is stated that the term is applied to "over-movements of one side of the body, as, for example, hemichorea, hemispasm, etc." I coin this word to facilitate the comparative study of one-sided mobile disorders, and their study in relation to hemiplegia. There are several mobile disorders which are alike, in so far that each of them affects first and most the same muscular region as is paralysed in hemiplegia; they are unlike, in that in each case the muscles suffer differently. There are many varieties of one-sided movements; athetosis is one variety. I did not think the case of my patient was one of athetosis. It is a variety of over-movement which I have been in the habit of calling hemicontracture. Before I publish the case, however, I shall re-read Hammond's description of athetosis, as well as study the papers of Gairdner and Clay Shaw.

I have many times written on the comparative study of one-sided mobile affections in relation to hemiplegia. That this method of investigation is useful, I will adduce Dr. Radcliffe's testimony. In his article on Chorea in the second (not in the first) edition of the second volume of Reynolds's *System of Medicine*, after stating the reasons I have advanced for the localisation of the changes producing chorea in convolutions near to the corpus striatum, he writes: "For most assuredly the difficulties which beset any attempt to localise the choreic lesion in the nerve-centres are not a little simplified by thus insisting upon the clinical relations between hemichorea and hemiplegia as a ground for believing that the region of the corpus striatum is the part affected in both disorders." J. HUGHLINGS JACKSON, M.D.

THE CAUSE OF DEATH AFTER THE INJECTION OF A NÆVUS.

IN Dr. Buchanan's interesting lecture, published in the *BRITISH MEDICAL JOURNAL* of June 26th, mention is made of a case of nævus of the eyelid treated by the injection of perchloride of iron, and ending fatally.

"A drop of perchloride of iron was introduced, and in two minutes it was dead, just as if shot through the head with a pistol. A particle or portion of the coagulated blood had entered into the ophthalmic vein, and had gone back and got plugged in some part of the venous circulation at the base of the brain or orbit. Congestion or stagnation of the blood had taken place, and the result was fatal."

It would be interesting to know whether the cause of death in this case was determined by *post mortem* examination, as the explanation offered by Dr. Buchanan would otherwise appear somewhat improbable; for, as the calibre of a vein increases with the distance from the capillaries, it is difficult to understand how the plug would become obstructed in its course towards the heart. Supposing, however, that the plugging took place in the orbit, I am still at a loss to conceive how an obstruction of the ophthalmic vein would occasion sudden death. If, on the other hand, the clot became lodged in the cavernous sinus of one side, owing to the free communications existing between the sinuses of the two sides, and the special provisions present in children for the escape of blood from the cranium, it may be doubted whether a fatal result would immediately follow. I have seen cases in which the lateral sinus and internal jugular vein of one side were plugged from extension of inflammation from the ear without causing any brain-symptoms.

It once happened that I was present when a child died suddenly after the injection of a nævus of its scalp, and the explanation then offered was, that the plug had passed through the right side of the heart and become impacted in some large branch of the pulmonary artery. I should be inclined to think that a similar accident had occurred in the case related by Dr. Buchanan, unless some other cause of death were discovered by *post mortem* examination.

R. CLEMENT LUCAS, B.S., St. Thomas's Street.

TESTIMONIAL.—A complimentary dinner and testimonial were on Friday, June 18th, given by the members of the Bradford Medical Aid Association to Joseph Farrar, Esq., L.R.C.P.Ed., in token of the highly satisfactory manner in which he has for the past two years discharged his duties as medical officer to the Association. Great regret was expressed by several of the speakers at Mr. Farrar's resignation.