the pulse. Fig. VI, obtained from a patient under the care of Dr. Habershon, shows the effect of an aneurism, entirely confined to the innominate, on the pulse. In this case, the aorta was quite unaffected ;

3. Left. Pressure, 4 ounces. Fairly normal.

the left pulse is, therefore, perfectly normal, while the right is highly aneurismal. The percussion-wave, well marked in the left, is entirely absent from the right, and the dicrotic is also less distinct. These tracings, showing the freedom of the aorta from disease, were of the highest value from a diagnostic point of view, especially with regard to the treatment to be recommended. Fig. VII, obtained from a patient

FIGURE VII.—Aneurism of Right Subclavian Artery in Second Part (Mr. Gant). Typical Aneurismal Tracing.

1. Right. Pressure, 2 ounces. Typical Pulse of Aneurism.

2. Left. Pressure, 5 ounces. Tracing characteristic of Aortic Regurgitation and Hypertrophy of Left Ventricle.

under the care of Mr. Gant, suffering from an aneurism of the second part of the right axillary artery, illustrates a still more aneurismal form of pulse; while the left pulse has no sign of aneurism about it, although it indicates aortic regurgitation and hypertrophy of the heart, both of which were confirmed by physical signs. This freedom of the left pulse from aneurismal characters often proves of great value in diagnosis; such, for instance, was the case illustrated by fig. VIII, that of a

FIGURE VIII.—Aneurism of Right Common Carotid Artery, involving Innominate (?), the Arch of Aorta remaining free (?) (Dr. Edmunds).

1. Right. Pressure, 12 ounces. This pulse is much smaller than the left, and presents Aneurismal Characters—i.e., diminution in all the waves.

2. Left. Pressure, 7 ounces. Quite consistent with a fairly healthy heart and aorta.

patient under the care of Dr. Edmunds, who kindly permitted me to examine her. It was a case apparently of aneurism of the right common carotid, for which Dr. Edmunds performed distal ligation of that vessel; the tracings, however, indicate, from the aneurismal character of the right pulse, that the innominate was also involved, though probably not to any great extent; while the fairly normal left pulse was a sign of the comparative freedom of the aorta from aneurismal disease—a point of the utmost importance in the prognosis and treatment of the case. This right pulse lost nearly all its aneurismal characters after the successful ligation of the carotid and apparent temporary cure of the aneurism; seven months subsequently, however, when she was again examined, the left pulse exhibited more marked aneurismal characters than the right, indicating the extension of the disease to the aorta itself. Of this case, we shall doubtless hear more from Dr. Edmunds, who has kindly permitted me to use it so far, to illustrate this sphygmographic point of diagnosis.

In some very rare cases, both pulses may be extremely aneurismal from the presence of a very large aneurism affecting all the vessels taking origin from the transverse arch. Such a case I believe that to be which is illustrated by fig. IX. These tracings were obtained from

FIGURE IX.—Very Large Aneurism of Transverse Arch, involving both Innominate and Left Subclavian Arteries (Dr. Douglas Powell and Mr. C. Heath). Both Radial Pulses highly Aneurismal.

1. Right. Pressure, 1 ounce. Both Radial Pulses highly Aneurismal.

2. Left. Pressure, 2 ounces. There was the most feeble pulsation in the Left Radial Artery, which required more pressure to develop it.

a patient under the care of Dr. Douglas Powell and Mr. Christopher Heath. Both pulses are in the highest degree aneurismal; to the finger, the pulse appeared almost absent: it could just be discovered in the right, but in the left was only detected with the greatest difficulty. It would naturally give an idea that the vessels were obstructed by clot; but, from the excellent tracings obtainable with the sphygmograph, it is most probable that there was no deficiency of blood passing down them: it had only lost in a great measure its highly pulsatile character owing to the presence of the large sac. The pulse had first diminished on the left side; and, as the aneurismal tumour was also first observable below the left clavicle, doubtless the aneurism commenced on the left side of the transverse arch, and gradually extended towards the right until it finally involved the innominate. Probably, at some future time, more light will be thrown on this case, and the present account may have to be modified; the very exceptional character of the tracings, however, induce me to introduce them.

[To be continued.]

CASES ILLUSTRATING THE FAMILY HISTORY OF SYPHILIS: WITH REMARKS.

By ROBERT J. LEE, M.A., M.D. Cantab., F.R.C.P.,

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IN order to determine the question of the certainty or probability of syphilis being communicated, in the event of marriage, to the mother and children, we require two series of cases, one of which, by affording certain data of a positive, the other by giving those of a negative character, will help us to arrive at the desired result. If we have a sufficient number of instances of family syphilis—that is to say, cases where the father has been infected previous to marriage, and the wife and children have exhibited symptoms of the disease more or less clearly marked—we may be able to decide, in any other particular case, the probability of such an occurrence. And, if we have a sufficient number of instances of the husband having suffered, but without any symptoms showing themselves in the

wife or children, we may also be enabled to decide of immunity being probable for the mother and children.

It is evident that we must be acquainted with all the facts which relate to the attack of syphilis from which the father suffered, the most important of which would be the interval of time between infection and marriage, the symptoms which characterised the various stages of the disease, and the condition of health at the time of marriage. This applies equally to the second series of cases—those of immunity in the family.

This method of finding a solution of the difficulties which surround the subject of hereditary syphilis appears to me, and must have suggested itself to many, as sufficiently reasonable to justify its trial, whatever labour may be required to obtain the data above stated.

The readiness with which the members of the British Medical Association respond to a request for information on any subject of professional interest, leads me to think that many who are engaged in family practice will be able and willing to communicate instances of family immunity amongst their patients, and thus assist in the collection of examples of the second series. The first series would more easily be obtained from the sources from which I have been able to collect the subjoined cases; viz., the out-patient department of a children's hospital.

There is no doubt that considerable trouble, time, and patience are necessary for the method here indicated of treating the subject of hereditary syphilis, as appears clearly from the careful collection of cases published by Mr. Hutchinson in the last number of the *British and Foreign Medico-Chirurgical Review*. But, as the questions involved are of great practical importance, and as I am inclined to think, from my own observations, that many interesting facts will present themselves, I have ventured to depart from the custom of introducing the subject at one of our societies, in preference for the more exact information to be derived from written details.

It appears to be possible to predict within certain limits the form which syphilis will assume in an infant or young child when the stage of the disease in the father at the time of conception is known; and, *vice versa*, there are certain syphilitic symptoms in the child which indicate certain conditions pre-existent in the father. That is to say, there is this difference between syphilis and zymotic diseases: that the child does not necessarily pass through a constant series of symptoms, but that, between the most severe form of the disease and the least distinct, there are certain forms which are related to the particular state of the parent or parents. Thus we perceive an indication of the existence of a period of immunity for the child, and the possibility of deciding in any particular case of the certainty, probability, or improbability of transmission.

But the great value which attaches to carefully collected cases, and the respect which I entertain for the exercise of independent reason, lead me to conclude without further remarks at present in this communication to the JOURNAL.

The parents in the following cases have given their personal histories.

CASE I.—M., aged 41, has been married three years. Four months before marriage, he had a chancre, and was under the care of Mr. De Méric at the Royal Free Hospital. He was soon cured of the primary sore. At the time of marriage, he was suffering from well marked secondary symptoms. Since recovery, and at the present time, he is in good health.—F., aged 22, suffered from severe secondary symptoms very soon after marriage, and, nine months ago, the throat was sore.—The first child was born dead and decomposed; the second is one year and eight months old. At the age of four months, a syphilitic eruption appeared, and it suffered from "snuffles". Now it has several large furunculi on the nates, one of which has been opened. The wound healed under mercurial treatment in four weeks.

CASE II.—M., aged 28, has been married five years. Five months before marriage, he had a primary sore, followed by buboes, which were discharging at the time of marriage. Subsequently, he had eruptions and secondary symptoms, such as sore-throat, etc. He is now in good health.—F., aged 24, had a primary sore one week after marriage, and buboes.—The first child was born at the eighth month, and lived five hours; the second is three years old. It was under my care at the Children's Hospital for congenital syphilis. It is now alive and well, though occasionally subject to discharges from the nose and mouth. The third is five months old. It was brought to the hospital when four weeks old with snuffles and syphilitic erythema.

CASE III.—M., aged 30, married between four and five years, had a primary sore between two and three years before marriage, which was healed in three weeks, and since then there have been no constitutional symptoms. He was treated simply with "black wash".—F., aged 28, suffered from sore-throat shortly before the birth of the first child, and has occasionally suffered since; but is otherwise in good

health.—The first child was born prematurely and dead; the second was under treatment at the Hospital for Diseases of the Skin in Blackfriars Road for syphilis, which appeared six weeks after birth, exactly as in the third child. The third, aged six weeks, is suffering from the ordinary symptoms of infantile syphilis in a mild form.

CASE IV.—M., aged 39, has been married ten years. Two years before marriage, he had a primary sore, which very soon healed. Twelve months afterwards, there were sore-throat and general weakness, from which he suffered at the time of marriage.—F., aged 34, has sore-throat slightly at times, but no well marked syphilitic symptoms.—The first child lived one week; the second three weeks; the third four years; and the fourth six weeks. The fifth was suffering from slight general symptoms of syphilis six weeks ago. Under mercurial treatment, they have disappeared.

CASE V.—M., aged 30, has been married one year and ten months. About seven years ago, he had a primary sore, which healed under treatment with "black wash" in six weeks, and, in three months, all symptoms had disappeared.—The wife has shown no signs of infection.—The child was brought at the age of three months to the hospital. There were general defective nutrition and some small superficial specific ulcers round the labia. Under mercurial treatment, the child soon appeared healthy.

CASE VI.—M., aged 38, married seven years, had a primary sore five years before marriage. He was treated with black wash, and took mercury. The gums were affected; the teeth decayed; and the hair fell off during the following three years. The skin has not been affected. His constitutional health is naturally more than usually robust. At the present time, this patient is under treatment for obstinate specific ulceration of the tongue.—F., aged 35, has no distinct history of secondary symptoms. She has severe periosteal inflammation of the left arm and synovitis of the elbow.—The first and second children died soon after birth. The third and fourth are alive and well. The fifth was brought to the hospital at the age of fifteen months with syphilitic furuncula on the nates and thighs. It was an eight months' child, and showed specific symptoms after measles. They soon yielded to mercurial treatment. The sixth child, aged four months, also showed symptoms of syphilis when ten weeks old, which were treated in the same manner as in the fifth child, and soon disappeared.

CASE VII.—M., aged 25, married two years and a half, nine months before marriage had an urethral chancre, and was treated for syphilis with "black wash". The symptoms soon disappeared, but returned three months later, when he went to a hospital, and, since he was discharged, has had no symptoms.—F., aged 27, suffered from local ulcerations three months after marriage; and, at the time of confinement, the skin and throat were much affected.—The first child was under treatment at the Children's Hospital, and died of syphilis, aged fourteen weeks; the second showed symptoms of the disease when six weeks old in a cutaneous eruption of the arms and legs, and was under treatment at the same hospital for ten weeks, when the symptoms disappeared. The parents and child regained apparently perfect health.

CASE VIII.—M., aged 20, has been married twelve months. He was infected twelve months before that, and, by medical advice, was allowed to marry. He had suffered from chancre, sore-throat, and constitutional weakness; but, at the time of marriage, was in good health.—F., aged 18, had local sores soon after marriage, and severe secondary symptoms.—The child was born nine months after marriage, and came under notice when three months old with general syphilis. It died between two and three months later, though every attention was given it.

CASE IX.—M., a healthy man, has married a widow aged 33. Her first husband had syphilis: the details are not ascertainable.—F., married fifteen years ago to her first husband, had four children.—The first was born dead; the second lived three months; the third and fourth were born dead. After remaining a widow between four and five years, she married again. It is seven years since the birth of the last child by the first husband, and the first child by the second is now fourteen weeks old. It presents well marked syphilitic dermatitis of the face, and has snuffles.

CASE X.—M., aged 28, has been married five years and a half. Between three and four years before marriage, he had a primary sore followed by buboes; but had no constitutional symptoms at any time.—F., aged 31, was constitutionally delicate. There is no account of syphilis till two years ago, when warty growths appeared on the labia, and there was erythema of the skin of the face.—The first child died at four, and was under the care of Dr. Cheadle at the Children's Hospital for congenital syphilis; the second lived three weeks; the third died at birth; the fourth was under my care at the age of three months for syphilis, and died subsequently of whooping-cough.

CASE XI.—M., aged 28, has been married four years. Between eighteen months and two years before marriage, he had a primary sore and urethral discharge, which healed under treatment in three months. No constitutional symptoms followed.—F., aged 22, has suffered since marriage from general debility; but no distinct symptoms of syphilis have shown themselves.—The first child, at the age of four weeks, exhibited well marked syphilitic symptoms, nasal discharge and snuffling, superficial cracks round the nose and mouth, slight coppery tinge of the skin, and spots on the abdomen.

CASE OF PLEURITIC EFFUSION: PARACENTESIS THREE TIMES: DEATH: NECROPSY.*

By W. MAKEIG JONES, M.R.C.S. Eng.,
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FOR permission to report the following case I am indebted to Mr. B. Walker, Surgeon to the Rotherham Hospital.

G. M., aged 30, male, unmarried, was a tall fine made man, and had served nine years in the Indian army. He had enjoyed good health till three months ago, when he had an attack of acute pleurisy. Not recovering from this, and being in poor circumstances, he came under my care as an out-patient, and was attended at his own home.

On May 27th, 1877, when I first saw him, he was lying on his back in bed, nearly exhausted, and almost cyanotic. His respirations were very frequent, and he had a constant short hacking cough. His finger nails were clubbed. His tongue was foul, and he gave a history of profuse night sweats for some time past. On examining his chest, the right side measured eighteen inches, and was superresonant on percussion. The cardiac impulse was to the right of the right nipple line. The left side measured twenty-one inches, was absolutely dull on percussion, and no breathing sounds could be heard. The chest-wall on the left was so swollen and oedematous, that it was impossible to feel the ribs. Knowing what was the matter with him, I had taken the aspirator with me, and at once proceeded to tap him somewhere about the angle of the scapula. I used a large needle, but, although the chest wall was so oedematous, the fluid withdrawn was clear serum. It measured thirty-five ounces. The upper portion of the lung expanded at once, and the heart's apex moved close to the right of the sternum. On the next day, a succussion-splash could easily be obtained, but this soon cleared off, and he nearly recovered and was able to walk about. In about a fortnight's time, however, it began to fill again; and, on June 19th, 1877, he was in much the same state as when I first saw him. I again tapped him, and this time drew off one hundred and forty ounces of clear serum. The cardiac impulse returned to its normal site, but the lung appeared to expand very slightly. He recovered in a few days, and used to walk out; but, on July 18th, 1877, I had again to tap him, drawing off forty ounces of clear dark serum. The cardiac impulse again returned to its normal site, but no breathing sounds whatever could be heard over the left lung. On visiting him the next day, he had gone out for a walk. On July 26th, 1877, he was seized with vomiting, and his urine was nearly suppressed. It was of a high specific gravity, acid, but contained no albumen. Symptoms of uræmia soon developed, he became comatose, and died on August 3rd, 1877.

A necropsy was made on August 4th, 1877, when both kidneys were found on section intensely congested, the smaller vessels in both portions standing out as dark lines; the other abdominal organs were healthy. On opening the chest, the heart was seen lying in the right side of the thorax with its apex under the right nipple line. The tricuspid and mitral valves were covered with recent lymph. The apex of the right lung was tuberculous. The left pleural cavity contained several pints of clear serum. There were a few long stringy adhesions in some parts. The costal pleura was slightly thickened where the puncture had been made, but was otherwise apparently healthy. The whole of the left lung was compressed into a carnified mass about the size of the palm of a hand. Its pleura was covered with about a quarter of an-inch thickness of tough leathery lymph, which must have prevented the lung from expanding. The head was not allowed to be opened.

REMARKS.—There are two points worthy of notice in this case. 1. Although the left side of the chest was cedematous, the fluid was not purulent. 2. If, after the first tapping, iodine had been injected or a drainage-tube inserted, the patient might have recovered. Either would have been useless after the subsequent tapping, as the lung was then incapable of expansion.

* Read before the Sheffield Medico-Chirurgical Society.

DISARTICULATION AT THE HIP.

By T. F. CHAVASSE, M.B. Edin.,
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THE BRITISH MEDICAL JOURNAL for April 27th contains the report of a discussion which has recently taken place, at the French Academy of Medicine, upon amputation at the hip-joint, the subject being introduced by a paper of M. Verneuil. In that communication, the eminent Parisian surgeon advocates driving back into the general circulation, by means of Esmarch's bandage, the blood contained in the limbs; and says that the operation itself should be performed by means of lateral flaps, a tedious dissection being undertaken as though removing a tumour, and all the blood-vessels ligatured before division. By these means, it is thought to procure a nearly bloodless operation, and, by facilitating the after-drainage of the wound, to render blood-poisoning less likely to occur.

What I conceive to be the best method of preventing hæmorrhage in this operation is compression of the aorta, not by the tourniquet, but by folded towels, or a pincushion, placed over the vessel, and a strong India-rubber band encircling the abdomen. Previously to this application, three or four turns with the elastic bandage should be made at the upper part of the sound thigh, to prevent egress of the contained blood until all is finished; thus constituting a sort of reservoir in the limb. On the affected side, if the operation be for malignant disease, it is better merely to elevate, and to allow the blood to gravitate, than to thoroughly empty the limb by the bandage. The blood contained should certainly not be driven out of both limbs, or, from the excessive engorgement of the internal viscera thus caused, the brain and lungs amongst the rest, unlooked for complications may arise for which the anæsthetic may be blamed.

By following M. Verneuil's particular method of operating, I must confess I cannot see any advantage to be gained. By a dexterous manipulator, the operation generally in vogue amongst English surgeons, viz., by transfixion, can be accomplished in from ten to thirty seconds, and a few minutes will suffice for securing all the important vessels. M. Verneuil's plan occupies at least half an hour, and so probably the danger from shock is increased. Mr. Spence, who, in this particular operation, has had more experience than falls to the lot of most surgeons, having performed twelve disarticulations at the hip with five successes, one of them being a primary for a machinery accident, remarks, in his *Lectures on Surgery*, vol. ii (second edition): "I have no hesitation in saying that, from my own experience, rapidity of execution in this operation is of great importance, as diminishing the risk from shock and loss of blood."

Ligaturing each vessel before it is cut, to prevent loss of blood, is unnecessary; for, in Mr. Spence's last case, at which I had the pleasure of assisting him, the operation was performed, as a last resource, upon a man with a very large malignant sarcoma of the femur; the veins of the limb were dilated to thrice their natural size. By compressing the aorta with a pincushion and India-rubber band, not more than two ounces of blood were lost altogether. The bleeding that did occur was nearly all from the large femoral vein, which had not been securely enough ligatured before the compress was removed.

Upon reference, I find that M. Verneuil advocated his operation at the Academy upon the strength of one successful case in which it had been performed. The plan of dressing that this surgeon recommends (*à la Lister modifié*) is not of the highest importance, as, by cutting the posterior flap carefully from without inwards, the edge of the wound need not, as Bell has shown, be so near the rectum but that the proper antiseptic precautions may be taken, putrefaction avoided, and free drainage effected.

ABNORMALITIES OF THE HEART IN AN EPILEPTIC PATIENT.*

By GEORGE J. HEARDER, M.D.,
Medical Superintendent of the Joint Counties Lunatic Asylum, Carmarthen.

E. G., AGED 44, was admitted January 27th, 1873, demented and subject to epilepsy. She had been deserted by her husband on account of her intemperate habits. Her height was fifty-seven inches; her weight one hundred and one pounds. The cardiac impulse was increased in force and area. A loud rough systolic murmur was audible, most distinctly in the line of the sternum, and was prolonged in the course of the great vessels. The radial pulses were very feeble, the left being

* Read before the South Wales and Monmouthshire Branch.