time the separation has occurred, the velocity of the circulation, and the angles formed by divergent branches. When an artery so obstructed is examined, it will appear as if distended with artificial injection, the coats being quite healthy. The plug is firm, distinctly laminated, like the contents of an aneurism; in shape mostly conical, the base directed to the stream; smooth; like an ordinary clot in colour; the apex often irregular, lighter in colour, and possibly identical in structure with fibrinous masses or vegetations, yet undetached.

The changes that ultimately occur are chiefly influenced by the size and position of the artery obstructed. If it be the internal carotid artery, by reason of its numerous inosculation with the branches of its fellow, and of the external carotid and the subclavian, the circulation is soon restored. If the embolus and the vessel be not adherent, the force of the circulation may produce dilatation of the vessel behind the obstruction, and the blood may gradually find its way between the plug and the vessel. In this way, the circulation may be in part restored. If the clot be firmly fixed, the dilatation may increase until the vessel ruptures. This is a rare cause of hæmorrhage into the substance of the brain. The embolus may be arrested at the angle of two divergent branches, loosely waving in one, and obstructing the other. This position may be easily altered, and the obstacle may again pass into the circulation, migrate, and obstruct some other vessel. The embolus may continue fixed in position, and gradually become less by a process of disintegration and absorption, the vessel once again becoming patent. When the obstruction continues some time, the nutrition of the brain suffers. Its consistence changes; it becomes soft, pulpy, almost diffuent at places, like cream in density and appearance; the extent of the alteration corresponding closely to the space within which the branches of the obstructed artery are distributed. In fatal cases, this is the most general *post mortem* appearance, death rarely following the immediate attack.

The symptoms are distinctive. The attack is most sudden, without premonitory warning. Consciousness is lost, after a few hours regained, disclosing partial or complete paralysis of one side. The face may be distorted, the tongue protruded to one side, the grasp diminished, and the foot trailed. Sensation is abolished, lessened, or perverted. Speech is defective, in the utterance of words, and even in the expression of ideas by signs. The paralysis is on the side of the body opposite to that in which the obstruction has occurred, thus agreeing with the distinctive character of cerebral paralysis from other causes. One side of the body may be completely paralysed, and the arterial pulsations in a part of the other be unable to be felt. Here embolism of the artery going to the part, is associated with a similar condition of an artery supplying the brain. Other internal organs in conjunction with the brain may be similarly affected; the spleen and kidneys more often than the liver. The first attack is often of short duration, succeeded by a second more lasting, it may be, of the opposite side of the body. In such the obstruction has become displaced, altered in position, and finally firmly wedged.

This condition may occur at any age. Of seven cases, three were under thirty years of age, while one was sixty-five. Four were males and three females. In every case a history of previous rheumatism was obtained, and the auscultatory evidence was clear of coexistent disease of the valves of the left side of the heart.

The treatment, immediate upon the seizure, must be directed to equalise and restore the circulation.

The recumbent posture must be strictly enjoined, and all constricting articles of dress set free. Some diffusible stimulant, as brandy or ammonia, may be administered. Some caution, however, is necessary, lest the circulation be excited in too great degree, and fresh particles of the obstructing matter become washed into the current. After consciousness has been regained, if the paralysis continue, the endeavour should be to hasten the absorption of the obstruction. Upon the supposition that ammonia possesses the property of liquefying the clot of coagulated blood, this alkali may be given. Even out of the body, upon the authority of Dr. B. W. Richardson, blood serum alkalified with ammonia possesses this property. Dr. Fletcher of Manchester (BRITISH MEDICAL JOURNAL, April 30th, 1864) has recorded a case of embolism which recovered, ammonia having been given in frequent and large doses. The symptoms were clear and well marked. The healthy nutrition of the body must be carefully maintained, so that, however small the quantity of blood is that the brain receives, it may be as nutrient as possible. With this view, a generous diet, wine and tonic remedies are indicated. Iron, quinine, alone or in combination with ammonia, or other approved absorbent, as the iodide or bromide of potassium, prove the most beneficial. Laxatives from time to time are necessary, and highly useful. Counterirritation behind the ear, or upon the crown of the head, by means of cantharidine blisters or the ointment of tartarated antimony, should not be omitted.

The foregoing considerations may be embodied in the following propositions.

An increase in the quantity of blood circulating in the brain, is alone adequate to produce impairment of its various functions.

The ulterior effects of the increase are much more serious than those of the increase itself.

A sudden diminution in the amount of blood distributed to the brain, is followed by complete paralysis.

Hemiplegia so produced, closely resembles hæmorrhage into or acute softening of the brain-tissue, not only in symptoms, but in power to destroy life.

CASE OF POISONING BY STRYCHNINE.

By R. J. ROGERS, M.R.C.S., late House-Surgeon to the Sussex County Hospital.

A FEMALE, aged 25, was admitted into the Sussex County Hospital, having about an hour and a half previously, swallowed one of "Barber's Magic Vermin Killer" powders with suicidal intent.

When seen, she was stretched across a chair, with her legs rigid and extended, the trunk in a state of opisthotonos, and there were tetanic spasms of the muscles of the arms, neck, and face. With great difficulty, in consequence of the rigid state of the jaws, a tube was passed into the œsophagus; and, by the aid of the stomach-pump, a quantity of warm water was injected, which returned clear and of a pale green colour. She was then placed in bed. The thighs and legs were persistently rigid and widely separated; the muscles of the upper extremities, neck, and face, were in a state of violent spasmodic contraction. There were occasional short intervals of perfect quietude, during which she was quite coherent; and in one of these she stated the cause of her having taken the poison. Any sudden noise or movement caused an accession of the paroxysms. She was very thirsty, and constantly craving for

water. She was ordered the following draught every quarter of an hour for six doses.

R Acidi hydrocyanici diluti (P. L.) mʒ; ammoniæ sesquicarb. gr. iij; misturæ acaciæ ʒij; aquæ destill. ad ʒss.

There was very great difficulty in swallowing. The pupils were widely dilated; the countenance was somewhat livid; the heart's action was forcible, but regular in its rhythm. No effect was produced by the medicine; and she died during an attack of more than usual severity about two hours after her admission.

Immediately after death, the following appearances were noted. The face, neck, and upper part of the chest, were of a livid colour; the teeth firmly clenched; the sterno-cleido-mastoid muscles were singularly prominent, hard, and strongly contracted. The arms were straight; the shoulder- and elbow-joints rigid, requiring great force to bend them; the fingers were tightly flexed. The muscles of the thighs and legs were also strongly contracted; and the united efforts of two persons could not bend the knees. The soles of the feet were arched.

About an hour afterwards, the muscles of the upper extremity were relaxing.

Three hours after death, the body was very warm; the lower extremities were relaxing. The knees could be bent; but the muscles were still rather hard.

Nine hours after death, the body was nearly cold; the rigidity of the muscles had nearly all passed off.

On examination of the body, twenty-four hours after death, there was great lividity of the face, neck, chest, and dependent parts. The flexor muscles of the forearms and legs were somewhat contracted; the hands were clenched; the soles of the feet were arched. There was unusual vascularity of the integuments forming the scalp. The surface of the brain was rather congested. The brain itself was quite healthy; there was no fluid in the ventricles. The spinal cord was healthy. There was nothing remarkable about the upper part of it, which only was examined. The lungs were intensely congested; there were a few tubercles in the apex of the right. The blood in the great vessels about the neck and chest was very dark-coloured and fluid. The pericardium contained two or three ounces of serum. The heart was flaccid; its cavities were quite empty; not a clot or drop of blood was to be seen. The blood throughout the body appeared unusually fluid. There were white silvery streaks on the surface of the abdomen, marks of a former pregnancy. The liver, spleen, and kidneys were healthy, but congested. The stomach contained several ounces of pale-coloured fluid; the mucous membrane was pale throughout. The uterus was large, weighing seven ounces and three-quarters. Its interior was lined with a white, flocculent membrane, easily separated, which, on microscopic examination, was proved to be decidua. There was a very large corpus luteum in the left ovary.

Some blood, pieces of liver and kidney, and urine, withdrawn immediately after death, were examined chemically by Mr. Peel, dispenser to the hospital, by Rodgers and Girdwood's process (*Pharmaceutical Journal*, vol. xvi, page 497.) In all these, distinct traces of strychnine were found. One of the powders, weighing 28 grains, was found on analysis to contain 2·8 grains of strychnine.

TESTIMONIAL TO MR. W. P. HOARE. A very flattering testimonial, consisting of a piece of plate and a microscope, was presented on the 4th inst. to Mr. W. P. Hoare of Faversham, by his friends. The Mayor presented the testimonial.

Transactions of Branches.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

CASES IN OPHTHALMIC PRACTICE.

By MATTHEW A. ADAMS, Esq., Surgeon to the Kent County Ophthalmic Hospital, Maidstone.

[Read at Gravesend, March 31st, 1865.]

If in the account of the following cases it should appear to you, that I have neglected to report many important particulars, you will please to understand that it has been my object in arranging these few remarks, to condense the subordinate features of each case, and give particular prominence to those on which I would desire to raise a discussion.

Without further sacrifice of valuable time, allow me to bring before your notice what I believe to have been a case of *Diphtheria of the conjunctiva*.

Mr. Hutchinson describes a similar case in the *Ophthalmic Hospital Reports* for October 1859, which called forth some remarks in the January following, from Dr. Mackenzie of Glasgow, strongly arguing against the existence of such a disease. So it still remains a question, whether there is such a disease. If there is, how is it to be recognised? How should it be treated?

CASE I. John Briggs, 9 months old, when first brought to me in May last, had been under Mr. Crook's care about a month for a purulent ophthalmia. In a letter to me on the subject, he says: "I found the child very ill in himself, with the eyes inflamed, and the eyelids lined with a tough whitish membrane, which I could not remove." And from the mother (who had two years previously to this time lost all her children—three in number—from diphtheria) I gained these additional particulars respecting its history. She first noticed that he failed in his health much as the other children did who had died of diphtheria. His appetite fell off; he was feverish and peevish; and after about a week the mother noticed a discharge from the left nostril, not clear like the discharge accompanying catarrh, but from the first thick, yellow, and fluid, precisely like the discharge she had witnessed in each of the three children before alluded to. On two occasions a piece of membrane came away with the discharge, and was shown to the "doctor," who decidedly pronounced it to be diphtheritic. After a time the right nostril became affected in a similar way, but never so severely as the left. By extension the eyes soon became affected, the left first. They were blood-shot, and discharged yellow matter; this was soon followed by a membranous deposit, first showing itself at the inner canthus, and gradually creeping over the front of the eyeball.

When I was consulted, I found the child very pale, the eyelids swollen, and of a livid purple colour, very red at the margin, and the lashes matted together, and a little thin purulent discharge running down each cheek. On separating the lids, the peculiarity of the case at once struck me. From the strong resemblance it bore to what I had seen in the throats of those affected with diphtheria, I was led at once to put the question: "Have you had diphtheria in your house?" This question was not dictated by any preconceived notion on the subject. At that time I was not aware of Mr. Hutchinson's and Dr. Mackenzie's papers on the subject. The ocular conjunctivæ and corneæ were covered with a tough inflammatory exudation, any attempt to remove which