will in all probability supply a radical and permanent remedy. If carious teeth are the excitants, they ought to be removed; or surface irritation of any form must be treated locally. If the irritation arises from intestinal worms, their evacuation will in most cases be speedily followed by a disappearance of the epileptic phenomena. And this brings me to the point at which special and general treatment overlap one another. Epileptics are frequently the subjects of constipation; and, conversely, constipation, especially in children, is one exciting cause of epilepsy. Therefore it is essential to watch the bowels of epileptics closely, and secure their regular action. For this purpose drugs of severity must be used, but they must be always such as will produce a good action without depression. A saline, combined with a stomachic as sulphate of magnesia and ginger, will be found most serviceable. Such a simple remedy will often keep in check an epilepsy of hereditary origin. Alooin and jalapin are also valuable remedies. In hereditary epilepsy, however, the treatment is much more general than special, and the patient must be closely watched and studied, particularly as regards the time of the recurrence of the attacks, which often exhibit a marked periodicity, especially when the neuralgic form is assumed. The first indication is to nourish the brain. Many of these cases are attacked in the morning on rising. The moment of getting out of bed is often the time of attack. In such cases my practice is to order the patient to take a cup of coffee and a biscuit before attempting to get out of bed. In cases where the attacks are nocturnal much benefit will be derived from a light but digestible meal before retiring to rest. It should be remembered that animal substances are more digestible than vegetable. A little meat is a better supper for an epileptic than gruel or bread, and a little stimulant in addition to the meat is often of value. I knew one patient, a lady, the subject of epileptiform neuralgia occurring in nocturnal attacks, who was always relieved on the assumption of a meal, which not unfrequently consisted of a rump-steak and a glass of stout. This treatment, of course, requires caution and watching.

As regards remedial agents, so far as this set of cases are concerned, very few are of any use, except perhaps belladonna—a drug that should be persevered in, as, by keeping the vessels of the medulla oblongata congested, it reduces to the minimum the hyper-excitability of the cerebral vessels, which are so ready to discharge themselves into the medullary veins, and thus the attacks may be warded off. The quantity administered must be gradually increased, as the patient soon becomes tolerant of the drug. It is well to begin with one-eighth of a grain of extract, which I usually order to be made into a pill with one-eighth of a grain of the powdered leaf: this should be taken an hour before the attack is expected, if the fits are periodical; if, however, the intervals are uncertain, the pill should be taken night and morning, and again in the middle of the day if necessary. The patient will soon be able to take two or three pills for a dose; but he must be carefully watched, and the drug suspended from time to time, and small doses again resorted to on recommencing its use. In a fair percentage this treatment will arrest the recurrence of the attacks—not a small boon to the sufferer; and so successful has it proved in my hands that I am inclined to attach considerable importance to it.

It is right that I should, in conclusion, mention the fact of the power of mental impressions on epileptics. The idea of a new doctor will often ward off the attacks for two or three weeks; for which reason my invariable rule with new patients is to order at first a bottle of water, or of camphor-water or mint-water, and persevere in this until the charm of novelty has worn off; until then it is unwise to push any drug with specific object, whilst the time gained by the mint-water treatment enables the physician to study all the phases of his patient's case more accurately.

Queen Anne-street, July, 1872.

THE mortality in London last week declined at the rate of 20 per 1000, and, taking into consideration the increase of population, was 247 less than the average in the corresponding period for the last ten years. This is gratifying evidence that the mighty city, with its three millions odd inhabitants, is slowly but surely becoming amenable to sanitary laws.

ON SYPHILITIC CONSTRICTION OF THE ŒSOPHAGUS AND PHARYNX.*

By JAMES F. WEST, F.R.C.S.,

SENIOR SURGEON TO THE QUEEN'S HOSPITAL, AND LATE PROFESSOR OF ANATOMY IN QUEEN'S COLLEGE, BIRMINGHAM.

I HAVE already drawn the attention of the medical profession to this subject on two occasions in the *Dublin Quarterly Journal of Medical Science*. My first paper on this matter was published in February, 1860, and the second in August, 1860.

In the first paper I examined the literature of this question. I showed that frequent allusion had been made by some of the older writers on syphilis, as Astruc, Falck, Daniel Turner, and Carmichael, to the fact of dysphagia coming on in the course of confirmed cases of constitutional syphilis, and producing by its continuance great emaciation and debility, and I quoted numerous cases from those authors in support of my belief that such dysphagia was due to syphilitic constriction of the œsophagus. Modern writers on syphilis had thrown doubts on the existence of syphilitic stricture of the œsophageal tube, and their opinions I gave also at some length. The proof that such stricture might exist was given by the *experimentum crucis*, a post-mortem examination of a patient of mine, Jane M—, whose case I had watched with great interest, in whom all the symptoms were well marked during life, and in whom there was found at the necropsy the following state of things:—"The upper portion of the œsophagus for about four inches was much dilated, its mucous membrane thickened and marked by spots having the appearance of recent cicatrices. At this distance from the upper end it was suddenly constricted, and terminated in a narrow canal which would barely admit a No. 4 catheter. This constricted portion, which was about two inches and a half in length, was formed by the thickening of the mucous membrane, and by fibrous deposit in the form of bands and bridles, having very much the appearance of an old stricture of the urethra." This case solved the doubt. Another case of a similar nature, though less severe, I published in the same paper. The girl, H. P—, in whom Mr. Acton took some interest, was under my notice for seven or eight years. Large doses of iodide of potassium were taken with great advantage, and although great difficulty of swallowing occasionally came on, her condition greatly improved, and the last I heard of her was that she was leading a virtuous life, and gaining a respectable livelihood as a laundress at the west-end of London. The paper containing the report of these two cases was republished in the *Archives Générales de Médecine* for June, 1860, without note or comment from the surgical editor; but as M. Föllin was then engaged on the first volume of his important work, "*Traité Élémentaire de Pathologie Externe*," we are able to know his opinions on the subject. After quoting three cases which he had cited in his thesis on Constrictions of the Œsophagus (Paris, 1853), derived from the works of Ruysch, Haller, and Paletta, and mentioning a case of which Mr. Langston Parker was the reporter, and to which I shall again allude, he finishes by saying:—"Enfin, West a publié sur cette question deux observations qui lui sont personnelles; la première, dans laquelle l'autopsie du malade a été faite, est seule probante, et elle suffit pour faire admettre l'existence du rétrécissement syphilitique de l'œsophage." M. Föllin states that he himself has seen two cases of œsophageal dysphagia which might have been connected with syphilis. In one of the cases there existed a psoriasis in the palms of the hands, and the patient recovered without the use of the sound; in the other the lesions were more deep-seated, and the cure was not complete. These were cases doubtless of cicatricial lesions which may be ameliorated, but which cannot be cured.

In August, 1860, I published my third case, in which again the necessary evidence was supplied by a post-mortem examination of ulceration and contraction existing in the lower part of the œsophagus in a patient who had suffered during

* Read before the British Medical Association at their late meeting.

life from well-marked symptoms of constitutional syphilis, and in whom, in fact, there was no other cause for death, beyond the debility and anæmia which are always present as marked features of the syphilitic cachexia.

Since that period I have had several cases under treatment where dysphagia existed as a symptom of advanced constitutional syphilis; but in most instances the disease has been due rather to the results of ulceration of the pharynx than of the œsophagus, and has consequently been more amenable to treatment: none of them have, at any rate, proved fatal. Mercurial vapour baths, iodide of potassium, in doses of ten to twenty grains three times a day, with the local use of Adams's vaporiser, by means of which the vapour of carbolic acid, tannin, and other astringents and detergents has been conveyed direct to the affected parts, have enabled me to cure all the cases I have had under treatment at a comparatively early stage.

Recently, however, I have had a case under notice where the mischief arising from the contraction caused by ulcers of the fauces and pharynx had existed a long time, and was so great that the patient was in danger of death from starvation, if not from suffocation; for the opening into the pharynx was so small that hardly a goosequill would pass. The opening into the posterior nares was also nearly lost, an aperture of the same size as that passing down to the pharynx alone existing. Asphyxia was imminent in this case, when Mr. Gilbert Smith, house-surgeon of the Queen's Hospital, performed laryngotomy, and saved life. Still, however, the contraction of the pharynx had to be got over, and a consultation was held as to whether œsophagotomy should not be tried as the best means of relieving the patient from imminent death by starvation. The intense constriction of the upper part of the pharynx was, however, at last overcome by the persistent use of bougies, at first by small urethral, but afterwards by larger prostatic, and eventually by œsophageal, bougies. The largest sized œsophageal bougie can now be passed without much difficulty, except the involuntary straining to which such an operation always gives rise, and the patient may now be said to be cured.

This case I venture to bring before the Association, not only because of its great intrinsic interest, but also because it may elicit the opinion of the many well-known syphilographers—M. Ricord, Mr. Acton, and others—who are present, as to whether the circumstance of syphilis producing constriction of the œsophagus and pharynx, to which I have called attention, is worthy of belief; also whether it has occurred to them in their practice to witness such constrictions, and if so, in what way they have been able to overcome them.

Very little notice seems to have been taken by English surgeons of the three cases published by me in 1860, but in France and America they have attracted observation.

Mr. Henry Lee has not called attention to the fact of the œsophagus or pharynx ever being constricted as the result of syphilis, in his article on that subject in Holmes's *System of Surgery*, vol. i., published in 1870.

Mr. Langston Parker, who at our last meeting in this town was president of the Surgical section, and whose loss the medical men of this district greatly lament, mentions my first case in his work on Syphilitic Diseases, published in 1860; and he himself reports the case of a gentleman who had secondary syphilitic ulceration of the pharynx and great difficulty of swallowing, the result of which was fatal, the patient dying exhausted while on a voyage to the Cape of Good Hope for the benefit of his health.

Yvarew records, in his "*Métamorphoses de la Syphilis*," two cases where difficulty of swallowing was caused by ulcers in the pharynx. (p. 388.)

Virchow gives a case where the superior portion of the œsophagus was contracted by a syphilitic cicatrix. ("*Syphilis Constitutionnelle*," p. 88.)

Cullerier's valuable work ("*Précis Iconographique des Maladies Vénériennes*," 1866), though abounding in illustrations of almost every form of syphilitic affection, does not refer to syphilis as affecting the œsophagus.

Lancereaux, in his admirable treatise on Syphilis, published by the New Sydenham Society in 1868, gives an historical *résumé* of the cases which have been reported both by ancient and modern surgeons, quotes *in extenso* my first case, and expresses his belief in the syphilitic origin of the contraction of the œsophagus. He calls attention to

the change in the liver noticed in that instance as further proof of the existence of syphilis, and concludes by saying, "The action of syphilis upon the œsophagus cannot be contested, and there is reason to believe that the cicatricial lesions pointed out in the foregoing cases are the result of morbid modifications analogous to those observed in the pharynx after ulcerative gummy deposits." Dr. Lancereaux does not appear to have met with any cases in his own practice.

Dr. Bumstead, of New York, in his essay on the Pathology and Treatment of Venereal Diseases, gives an abstract of my papers in the *Dublin Quarterly*, and then says:—"In reviewing this subject, it appears extremely probable that Mr. West is right in his conjecture as to the cause of the stricture in the cases which have come under his observation, since we may readily admit that syphilitic ulceration of the fauces may extend to the œsophagus or attack the latter as a primary affection."

Dr. Melchior Robert,* of Marseilles, does not give special attention to constriction of the œsophagus, but speaks frequently of difficulty of deglutition as associated with syphilitic ulcerations of the pharynx and larynx; he is, however, evidently familiar with syphilitic mischief as affecting the œsophagus, because, in speaking of the post mortem appearances of those who have died from the syphilitic cachexia, he says:—"L'autopsie montre différentes lésions dans la gorge, le larynx, l'œsophage, et les intestins."

The most recent contribution to this branch of medical literature is an article by my friend Dr. Clapton, in the last volume of "*St. Thomas's Hospital Reports*" (1871). He comments on the rarity of stricture of the œsophagus, and illustrates it by the fact that only five cases have presented themselves at St. Thomas's Hospital during the last six years, and says that, although cancerous infiltration is by far the more common of the two causes of stricture, it may depend on fibrous thickening. He then quotes the case of a man, aged fifty-five, now under his treatment, but nearly cured. The patient does not admit having had syphilis, but there is no other adequate cause for the disease, although undoubtedly a stricture had existed at the lower part of the œsophagus, which had very nearly proved fatal. Dr. Clapton believes that it was "due to thickening of the mucous membrane and submucous fibrous deposit. There are," he says, "several instances on record of such an affection occurring idiopathically, and leading to transformation of a portion of the parietes into a fibrous or fibro-cartilaginous substance, independently of precedent ulceration of inflammation. What the diathetic condition which led to it in this man may be it is difficult to determine; probably gouty, as his mother suffered much from gout." I cannot agree with Dr. Clapton in this opinion. The history states that he had never had gout or rheumatism; but although he equally denied having had syphilis, I cannot help thinking the cure of the case by iodide of potassium and iodide of iron, the amendment appearing almost coincident with the use of the former remedy, renders it extremely probable that the disease was due to syphilitic contraction of the œsophagus, occurring, as in my first and third cases, just above the cardiac extremity of that tube.

I now give the history of the case of constriction of the pharynx, to which I wish specially to call attention:—

Isabella E—, aged twenty-six, dressmaker, was admitted into the Queen's Hospital Jan. 23rd, 1872, under my care. She has been married thirteen years. Eight years ago she was under treatment in the out-patient department of this hospital; she then complained of sore-throat, to which she had been subject for two years; she had also had a rash on her back and chest, and had lost her hair. For the last eight years she has been on and off an out-patient, principally on account of the throat, which would heal up and "break out" again. She has had nodes on the frontal bones and tibiae. Five months ago she left off attending the hospital; the throat was then, as she says, beginning to "grow up." The patient has had the greatest difficulty in swallowing and breathing; she can only swallow liquids, and those in small quantities. Her breathing is so difficult that she is at times almost suffocated. On examination the soft palate is seen to be ulcerated and cicatrised to the base of the tongue, having on one side an opening only the size of a small pea; through this opening the food has to pass

* *Nouveau Traité des Maladies Vénériennes*, 1861.

and the function of respiration is performed. Patient has an anxious, careworn look, and has lately been getting much thinner, not being able to swallow a sufficient quantity of food for her proper nourishment. She has come into the hospital to have, if possible, this condition relieved. There is a second opening of the same size into the nares, the soft palate being everywhere adherent to the back of the pharynx. She was ordered a mixture containing twenty grains of the iodide of potassium and a drachm of tincture of chinchona three times a day, and a careful examination was made of the parts with reference to an operation, the nature of which was still under consideration, when on

Feb. 1st, about midnight, the patient was seized with the utmost difficulty of breathing; this difficulty increased so much that in about half an hour she was nearly asphyxiated, and it was necessary, in order to preserve her from suffocation, to open the windpipe through the cricothyroid membrane. This operation was skilfully performed by Mr. Gilbert Smith, the house-surgeon, a vertical incision being made through the skin, and a transverse incision through the membrane. There was no hæmorrhage; the operation was perfectly successful, and was attended with immediate relief.

2nd.—Patient has passed a comfortable night, and is becoming accustomed to the tube. The irritation is not more than is usually caused. Pulse 100; temperature 99.4°. To take the following mixture three times a day:—Iodide of potassium, twenty drachms; ipecacuanha wine, fifteen minims; tincture of opium, five minims; water, one ounce.

5th.—She is now able to wear the tube without much inconvenience. It was resolved to attempt to dilate the aperture in the soft palate by bougies. A No. 10 urethral elastic bougie, the largest that could be introduced, was passed twice a day. Pulse 100; temperature 99°.

6th.—The throat has been made rather sore by the passage of the bougie. Nos. 11 and 12 were passed to-day. Pulse 102; temperature 98.8°.

7th.—Bougie, which had been passed daily, caused such great pain that it was obliged to be discontinued. She has slight bronchial irritation. Pulse 98; temperature 99.6°.

10th.—Bronchitis relieved a little; respiration accomplished with great difficulty. The tube causes great pain. Pulse 90; temperature 98.4°.

14th.—Throat very painful, and appetite very bad; patient very desponding. Pulse 88; temperature 98.4°.

19th.—Appetite bad; complains of pain in the left breast, right shoulder, and lumbar region. A bougie is passed almost daily. Mustard plaster to chest.

23rd.—Bronchitis fast disappearing; she looks much better; throat not so painful.

26th.—Still improving, though very weak. She experienced much benefit from the hot poultices. Pulse 98; bowels regular. A larger-sized bougie passed to-day.

29th.—Feels much stronger to-day.

March 4th.—Greatly improved; throat not so painful. Largest bougie passed again to-day.

8th.—Very much better; bougie passed daily. She left the hospital at the end of March; but was ordered to continue taking her medicine regularly, and to come to the hospital twice a week to have a bougie passed.

June 10th.—The patient has come up for the first time since her discharge, complaining of slight difficulty of swallowing and breathing. A full-sized bougie was passed, which gave relief, and a mixture of iron and iodide of potassium was ordered to be repeated.

In contributing this case I may be thought to be departing from the subject of my paper; but originally the title sent to the secretary of the Printing Committee was "On Syphilitic Constriction of the Œsophagus and Pharynx." The subject of the present paper did not suffer from syphilitic laryngitis or œsophagitis, but simply from a constriction of the upper part of the pharynx, caused by the cicatrization of extensive ulcers in that situation. Repeated examination with the laryngoscope showed that the vocal cords and epiglottis were entirely free from disease; and that the obstruction, therefore, was purely of a mechanical nature, and existed above the summit of the larynx. The case in some respects resembles that recorded by Dr. M. Robert, where M. Ricord, on the 3rd of January, 1848, performed tracheotomy on a patient who was almost moribund with advancing asphyxia, and who would, even during the operation, have died had not M. Ricord, "moved," as M. Robert says,

"par un sentiment d'humanité, appliqua ses lèvres sur la plaie de la trachée et aspira à plusieurs reprises le sang et les mucosités purulentes qui s'opposaient à la respiration. Ce dévouement eut pour résultat de ramener le patient à la vie." In this case, however, disease was so far extended that the patient subsequently died. The pharynx, the soft palate, and the epiglottis were found to be lost to a great extent. M. Ricord's case, then, helps to show that syphilitic disease may begin in the pharynx. My case shows the result of loss of substance in the situation—namely, such constriction of the pharynx as would have led to death by asphyxia or by starvation had not suitable treatment been adopted.*

BRIEF NOTES ON BERI-BERI AS SEEN IN JAVA.

By W. C. S. CLAPHAM, M.R.C.S.,

LATE SURGEON ON TELEGRAPH STRAMSHIP "HIBERNIA."

DURING a stay of six weeks at Banjoe-Wangie, a town on the east coast of Java, I had, through the courtesy of Dr. Hail, the Dutch resident surgeon (to whom I am indebted for much of the following), numerous opportunities of studying beri-beri in the Convict Hospital. It is a disease somewhat resembling rheumatism at its onset, but soon presents symptoms quite foreign to that affection. Its apparent causes are wet, cold, bad food, overcrowding, and malaria, but the fact of its occurring in malarious districts, and then only after a residence of some months, rather points to the last mentioned as the most probable cause. The water of beri-beric districts also contains a large quantity of vegetable matter, but I am not aware that any good analysis of it has yet been made, and I had not any apparatus at my disposal to make an examination of any value.

Symptoms.—Pains in bones and joints; increasing debility; loss of motion in limbs (which may amount to complete acinesia); enlargement and irregular action of heart (mitral bruit heard with systole in two cases); dyspnoea on least exertion; effusion into pericardium, and other serous cavities of body; and at last general dropsy. These symptoms are accompanied by great anæmia, and may either declare themselves gradually, extending over a period of several months, or, on the other hand, may be fully developed and cause death in a few hours.

The walk of a beri-beric patient is quite characteristic, and somewhat resembles the progression of a child learning to walk, there being the same difficulty in the recovery of the foot after taking a step.

Beri-beri attacks both sexes, occurs only in tropical climates, is occasionally epidemic, but more often confined to a limited area, as in Borneo, where only a small tract of the country is visited by it. In two places in the same latitude and enjoying apparently like conditions, one will be free from and the other filled with the disease. Thus beri-beri is common in Java, whereas in the island of Baly, which is only separated from Java by a narrow strip of sea (Baly Straits), the disease is unknown. Beri-beri often follows a severe attack of intermittent fever. Urine passed is generally small in quantity, and occasionally albuminous.

The *prognosis* is unfavourable, the duration of the disease being so uncertain, and ranging from two hours to as many years. Death usually results from paralysis of the heart.

The *post-mortem examination* shows more or less general dropsy; pericardium commonly much distended with fluid, and containing flakes of fibrin; heart enlarged and flabby.

Treatment.—Chiefly tonic and supporting; iron and quinine, nux vomica, and elaterium, if used with care, as patients are usually much depressed. Warm baths are useful, and some natural sulphur springs (temp. 118° F.) on Baly Island are frequented by the Javanese suffering from this disease, with advantage. The most effectual treatment in case of Europeans attacked with beri-beri is removal to a cold climate.

August, 1872.

* M. Ricord, after hearing this paper and thanking the author for his observations, said that, although very familiar with stricture of the pharynx, he had never met with a case of stricture of the œsophagus.