five months, with the ultimate cure of her local affection and restoration to health.

CASE VI. Stricture of Internal Os Uteri: Sterility: Cure.—Mrs. D., one of eleven children, aged 28, had been married five years. Her husband, aged 32, was one of seven children. She enjoyed good health; menstruated every three weeks and three days, the flow lasting four days, moderate in quantity, bright without coagula; it was accompanied by slight local discomfort. There was no constitutional disturbance. The uterus was normal in position and texture; the external os was round and of average size. The sound passed with ease up to the internal os, where it was arrested. Failing on two occasions to overcome the obstacle, I advised the use of the hot vaginal douche, and belladonna suppositories night and morning. After this treatment, I succeeded in passing a small whalebone sound two inches and a half, for which, on withdrawal, I substituted a very small silver stem, soon to be followed by a larger one, which she wore several days. Then the India-rubber stem was introduced and retained for about five months, with little discomfort but great increase to the menstrual flow. Scarcely six months had passed, when she became pregnant, went to the full period, and was safely delivered of a fine child. She has since had excellent health.

CASE VII. Congenital Sterility: Cure.—Mrs. E., aged 28, one of six children, married six years, was well developed. Her husband, aged 29, was one of four children. She enjoyed good health, menstruated normally, and had no detectable disease of the uterus or of the ovaries. The uterus appeared somewhat small and flaccid; but a sound passed two inches and a half easily without pain. She wore for two months an India-rubber stem with slight discomfort and with increase to the menstrual flow, after which the uterus was found somewhat larger and firmer. Two months after the removal of the stem, she became pregnant, and passed satisfactorily through a normal labour at term.

CASE VIII. Induced Sterility: Cure.—Mrs. D., aged 36, had two children within two years of marriage, the last eight years ago. She had good labours and recoveries. The uterus was somewhat congested and low in the pelvis. Cured by ordinary treatment. Not becoming pregnant during the succeeding eighteen months, she again applied for advice on the score of sterility. No disease being detected, the stem-treatment was adopted. At the end of three weeks, the stem was forced out during a period, which was shortly followed by pregnancy, terminating normally at term in the birth of twins.

CASE IX. Subinvolution: Sterility: Cure.—Mrs. T., aged 38, had one child twelve years ago, a year after marriage, severe labour, fair recovery; but since then menstruation had been irregular, usually deferred and scanty, with slight discomfort. General health good. The uterus was enlarged and indurated, low in the pelvis; the os was transverse and patulous, exuding tenacious muco-pus; the cervix was abraded. The sound passed three inches in the normal direction with some difficulty and pain through the strictured internal os. Under the influence of rest, local puncturing, iodised cotton and glycerine, and the hot vaginal douche, the uterus was brought into a normal state. More than a year having passed without pregnancy resulting, she again applied for advice, when a succession of stems were introduced, and worn for a period of four months with great increase in the menstrual secretion. She became pregnant immediately on the removal of the stem, went to the full period, and was favourably delivered of a fine child. A period of nearly three years elapsed, when she again sought my advice, was similarly treated, and with like successful results, giving birth to her third child in her forty-second year.

CASE X. Fibroid in Anterior Wall of Uterus: Dysmenorrhœa: Sterility: Cure.—Mrs. G., aged 31, married upwards of five years, had suffered for many months from profuse and protracted menstruation with intense dysmenorrhœa, producing serious derangement of her health. The uterus was enlarged and firm, much anteflexed. A fibroid tumour, about the size of a small walnut, could be detected at the junction of the neck with the body of the uterus. The sound passed three inches and a half with great difficulty and pain through the internal os uteri. As little or no improvement took place in her general or local conditions after many months of treatment, I commenced the use of the stems, which shortly lessened and ultimately removed all pain and greatly moderated the hæmorrhages. She wore the India-rubber stem for seven months. About eight months after its withdrawal, she became pregnant. During her pregnancy, the tumour could scarcely be detected. She went to the full period, and was delivered, after a somewhat protracted labour, by Mr. Pocklington, with the forceps, of a living child. She has since, I am informed, made a perfect recovery.

CASE XI. Fibroid of Uterus: Dysmenorrhœa: Menorrhagia: Cure.

—Miss H., aged 36, had enjoyed good health till eighteen months ago, when she began to suffer from more profuse, prolonged, and oft-repeated losses of clotted blood, accompanied with severe periodic pains, symptoms which had of late greatly increased and made "sad inroads" on her general health. The uterus was much enlarged, very dense, with nodular deposits about the lower segment of the body. The sound passed with some difficulty and slight pain through the internal os four inches and a quarter into an enlarged cavity. As all remedies, both general and local, had failed to do more than temporarily ameliorate her symptoms, the stem-treatment was adopted with speedy good results. After wearing the stem five months, it was removed, and shortly after her former symptoms began to recur. Again the stem was introduced, and worn for eleven months, since which, upwards of two years, she has menstruated normally. She is now in excellent health, and no trace of the former mischief can be detected.

In two cases, the anteflexion was so extreme that, although the India-rubber stems were worn for many months, still they were found bent. In one, the patient was free from dysmenorrhœa at the end of many months, and may still so remain for aught I know.* As to the other, a hospital patient, from whom Dr. Godson removed the stem, I have no particulars. I have reason to believe, from a subsequent examination, that in one of these cases the uterus was bound down by adhesions to the surrounding parts. In a few cases, where there had been a tendency to a free loss during menstruation, the flow was much increased and the period prolonged, but never to the extent of inducing me to suspend treatment. In nearly all the cases, while the stem was in position, there was a more or less free secretion of mucus, in a few occasionally tinged with blood, which ceased on removal of the stem. I could have largely added to the number of cases treated during a period of nearly five years; but I have deemed it more useful and instructive to restrict myself to the narration of a few typical cases.

A friend, after having read through this paper, remarked that it would be as well to record one or more unsuccessful cases; but, as not one case of failure has at present come to my knowledge in which the stem-treatment has been carried out, I am, happily, unable to comply with his suggestion.

ON HEMIANÆSTHESIA OF SPECIAL AND GENERAL SENSATION.

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Now that attention has been frequently and strongly called to the anæsthetic phenomena of hysteria, it may be of some service to examine into the question of hemianæsthesia from whatever cause, and to compare other varieties of this condition with that due to hysteria.

I think it unnecessary to occupy time with arguments to prove the authenticity of the phenomena in question, and to show that they are not the result of "expectant attention or duplicity". It is only surprising that any prominent member of the profession should still be found to maintain such a position in public speaking and in print. I leave all such to settle their account with Professor Charcot, than whom no calmer or more dispassionate observer could be found, and I would refer them to the first volume of his published *Lectures on the Diseases of the Nervous System*.

Besides hysterical anæsthesia, a loss of sensation of the same order has been described in two conditions: 1. Chronic alcoholism; 2. Organic brain-disease. To these I would add a third condition—viz., lead-poisoning; and I will begin by narrating a case of this description which came under my own observation in Paris. The hemianæsthesia from alcohol and from lead-poisoning appears to be closely allied to the analogous condition in hysteria; because it is not apparently due to any gross lesion of the brain, and may therefore be classed with the so-called functional modifications of sensation; and because, in many cases of the alcoholic form at least, the recovery was rapid and complete.

CASE I.—P. L., male, aged 52, was admitted into l'Hôpital Temporaire, under the care of M. Lépine, on May 18th, 1877. From twenty to thirty-four years of age he had been a soldier. He denied syphilis. After leaving the army, he worked as a jeweller, and had nothing to do with lead; but, about six months ago, he began to work in some white lead works. At the end of seven weeks, he had a severe attack of

* I have recently heard that this lady became pregnant, went the full period, and was safely delivered of a living female child about two years ago.

colic, for which he went to a hospital and was an in-patient for three weeks, when he went out cured. He returned to his work, and three or four days afterwards perceived that he was a little weak in the left arm and leg. He suffered at the same time from headache, and he himself noticed that the sensibility of the left half of the body was diminished, and he complained of itching and tingling of the hand and foot of that side. For a short time before this, while he was in hospital with colic, he experienced a sensation like flashes of lightning in his left eye, more especially towards the left side, and the sight of that eye began to diminish. This impairment of sight has increased since that time.

On examining him, I found the grasp of the left hand to be considerably less than that of the right; but, though the force with which he could use that hand and arm was diminished, he retained every kind of movement—could open and shut his hand freely, raise his arm over his head, dress and feed himself without the least difficulty, and, in fact, there was none of that stiffness and awkwardness of movement which are seen in most cases of a slight degree of ordinary hemiplegia. In the same way, he did not walk at all lame or drag the left leg, but this leg became much more easily tired than the right; and when his power of resistance to forcible flexion and extension of the different joints was tested, it was found to be markedly less in the left leg than in the right. There was no facial paralysis, and he protruded his tongue straight. General sensation was very much dulled on the left side. In the face and tongue it was very much diminished, but not absolutely gone. In the arm he could scarcely feel the hardest pinch or prick at any part, and there was a similar obtuseness in the skin of the left side of the chest and abdomen. There was scarcely any sensation at the upper part of the thigh, but over the lower part of the leg and the foot there was only very slight diminution in the sensibility. He was unable to smell at all with the left nostril, the right being normal. He was unable to read a single word with the left eye, but with the right he could read a newspaper easily. He could only hear a watch when placed in actual contact with the left ear, but with the right he could hear it at a distance of a foot or eighteen inches. Taste was quite abolished at the front of the tongue on the left side; and, though not quite abolished at the back, it was very much less acute on the left than on the right side.

Metallic applications were tried in this case, but without any sensible result. The patient remained in hospital for several weeks, but without material change in his symptoms.

The anæsthesia which occurs in chronic alcoholism has been specially described by M. Magnan in his book *De l'Alcoolisme*. M. Magnan says that, in such cases, "whether after a sudden apoplectic attack with loss of consciousness, or little by little without other morbid phenomena than headache, dizziness, numbness, or formation on one side, the patients complain of muscular weakness, they drag the leg, let things slip from the hand, and sometimes even the speech is affected, or there may be slight facial paralysis. The paralysed side is anæsthetic—not only the skin, but the mucous membranes and the deep structures. When the anæsthesia is complete, the different varieties of sensation are abolished; neither touch, tickling, pricking, heat and cold, nor the constant or induced currents are felt. The muscular sense is diminished, and sometimes entirely abolished. The anæsthetic members are habitually colder than the healthy ones. Sometimes the difference of temperature between the two hands may attain to between two and three degrees centigrade. The special senses offer modifications no less remarkable. There may be merely a slight enfeebling, or there may be complete abolition of function. There is amblyopia, and also a loss of perception of colour. The hearing is dull; the sense of smell is diminished, and sometimes entirely abolished. The taste is diminished or lost on the anæsthetic side. In such cases, the motor symptoms sometimes rapidly pass off, whilst the sensory remain; at other times, the two sets of symptoms pass off *pari passu*; whilst in other cases, again, the motor and sensory symptoms grow progressively worse."

I will add a *résumé* of one of the cases reported by M. Magnan, that of a man who had been a drinker from the age of nineteen years. He had drunk much absinthe, and had had one epileptic attack. For two years he had suffered from paresis of the right side, with trembling of the limbs, which was more marked in the right than the left side. He was admitted into the *hospice* of St. Anne with alcoholic delirium. On admission, he was suffering from muscular weakness and anæsthesia of the right side. When the arms were extended, the right arm became much sooner tired than the left, and the trembling became much more marked; when the right leg was raised from the bed, it became much sooner fatigued than the left. The grasp of the hand was notably less on the right side than on the left, and the patient had difficulty in standing on the right leg, but could spring with ease on the left foot. Pin-pricks which were felt less than in the normal condition on the

left side were not felt at all on the right, there being complete anæsthesia of that side. There was amblyopia of the right eye. Odours were not perceived in the right nostril; hearing was feeble in the right ear; and the sense of taste was very much dulled on the right side of the tongue. The hemianæsthesia persisted for ten days without change, but after that it began to improve; and, five weeks after admission, the sight appeared equally good on the two sides, the hearing was much improved, but remained a little obtuse in the right ear, taste was improved, and he could smell equally well with the two nostrils. The general sensibility, though improved, continued to be dull on the right side. The trembling ceased on both sides. The treatment consisted in the administration of iodide of potassium in doses of fifteen grains *per diem*, with a bitter tonic.

M. Magnan gives details of several other cases of the same order which have occurred in his practice, in some of which there was a more or less complete recovery, and in others a progressive increase in the severity of the symptoms. In one case, there was a return of the hemianæsthesia with each attack of alcoholism; in another, sensation, general and special, returned, with the exception of the sense of smell.

In a case of alcoholism which came under my own notice at the Hôtel-Dieu at Paris—that of a man of middle age, under the care of Professor Germain Séé—there was complete hemianæsthesia, both general and special. In this case, the metallic applications were tried, and sensation was completely restored, as in the case of the hysterical patients. I regret that I cannot give the observation in detail, as I unfortunately took no notes myself, and I have been unable to obtain any from the *interne* of the ward.

I will now pass on to the hemianæsthesia, general and special, which exists in rare cases of organic disease of the brain. Attention was first called to these cases by Ludwig Türck* in the year 1859, when he described four cases of hemiplegia with hemianæsthesia in which necropsies were made; but in two only of these cases was there special as well as general anæsthesia. One of these patients was a young woman aged 22, who died six months after an apoplectic attack, which had deprived her of power and of sensation, general and special, on the right side. The power returned almost entirely, but the anæsthesia remained. A patch of softening was found lying outside the optic thalamus, and involving the outer two-thirds of the foot of the corona radiata. The optic thalamus itself was not injured. The other case was that of an old woman, who had been the subject of right hemiplegia for several years, accompanied by complete hemianæsthesia special and general. At the necropsy, an old apoplectic cicatrix was found lying along the outer side of the left optic thalamus, affecting a considerable extent of the posterior portion of the expansion of the corona radiata, part of the internal capsule, and perhaps also a portion of the lenticular nucleus.

The only other cases of the same nature of which I have been able to find a record are two cases which occurred in the practice of M. Charcot at the Salpêtrière, and which were reported by M. Pitres (*Progrès Médical*, 1876, p. 522). The first of these was a woman fifty-eight years old, who had been hemiplegic for four years, and in whom both general and special sensation were lost. At the necropsy, a patch of softening was found in the posterior half of the optic thalamus, which extended outwards so as to destroy the caudate nucleus involving the back part of the internal capsule. The second case was that of a woman who had been hemiplegic for twenty years, the leg being more affected than the arm. Sensibility to ordinary touch was very little affected, but the power of appreciation of pain was almost completely abolished. Sight was fairly good in both eyes, but the field of vision on the affected side was concentrically contracted in a very marked degree. The senses of hearing, smell, and taste were very much dulled on the hemiplegic side.

Two cases in which hemiplegia was accompanied by loss of sight in the eye of the affected side have been reported by Dr. Bernhardt (*Berliner Klinische Wochenschrift*, September 6th, 1875); but in these cases no note has been made of the condition of the other special senses, so that they are useless for my present purpose.

I met with a case of this rare form of hemiplegia, in one of the hospitals in Paris, which presented all the characters above described, with the exception that the loss of sight was on the opposite side to that which was paralysed. I subjoin the notes which I took of the case.

CASE.—L. M. F., male, aged 32, employed on a railway, was admitted into the Hôpital Temporaire, under the care of M. Lépine, on May 30th, 1877.

* Ueber die Beziehung gewissen Krankheitsherde des grossen Gehirnes zur Anæsthesie." Aus dem xxxvi Band, S. 191, des Jahrganges 1859, des *Sitzungsberichte der mathem.-naturw. Classe der kais. Akademie der Wissenschaften*.

History.—His previous health seems to have been fairly good. He had an attack of acute articular rheumatism three or four years ago. He never worked in lead. He denied syphilis. He had never had sore-throat. About a year ago, he had an eruption on the chest, for which he was ordered baths, but no medicine; and it disappeared after a fortnight's treatment. He was in good health until six weeks or two months before admission, when he began to suffer from very severe frontal headache, which was worse at night, and was sufficiently severe to keep him awake. At the beginning of May, he had an attack one evening, with loss of consciousness. On coming to himself next morning, he found that he was paralysed on the left side. He could not stand for four days, and it was still longer before he could hold anything in his hand. There was some difficulty in speaking; he did not forget his words, but could not pronounce them properly. He had gradually grown stronger; and, on admission, could walk about the ward, dragging the left leg a little. The grasp of the left hand was considerably less than that of the right, and he had difficulty in raising the arm over his head. When he was looking at an object in front of him, there was from time to time a little irregular movement in the eyes—a slight involuntary roll. If, however, either eye were shut, the other eye became the subject of very marked nystagmus—mainly horizontal, and coarse in quality. If he were looking with both eyes in such a way as to put the muscles on the strain, the nystagmus again came on, but to a less extent. The pupils were equal, and acted well to light. There was distinctly deficient action on the left side of the face; the left corner of the mouth was less retracted than the right when he showed his teeth; and he had been unable to whistle since his attack, which he could do easily before. There was almost absolute loss of general sensation over the whole of the left side of the body; he could only just feel the hardest pinch in the head, face, arm, trunk, or leg; he did not feel a touch on the left conjunctiva or left side of the tongue. The special senses, moreover, were affected; he was unable to smell with the left nostril; he was barely able to hear my watch placed in close apposition to the left ear, though he heard it at a considerable distance with the right. Taste was nearly or quite absent on the left side of the tongue. When his sight was examined, however, it was the right eye which was deficient, and he had great difficulty in reading with that eye, what he read with ease with his left. This partial blindness of that eye, he believed, had come on since his illness, as he had good sight before. The field of vision, tested roughly with the fingers, appeared normal.

I may mention that Professor Charcot has found that there is a frequent connection between posthemiplegic chorea and this particular form of hemianæsthesia, and his observations have been confirmed by other observers so far as the sense of sight is concerned. Thus, in the two cases reported by Bernhardt (*loc. cit.*), loss of sight in the eye of the hemiplegic side was associated with choreic movements in the limbs of that side. In one of Professor Charcot's cases at the Salpêtrière that I had the opportunity of seeing, an elderly woman, who had suffered from hemiplegia for several years following an apoplectic stroke, had general and special anæsthesia, associated with choreic movements. Metallic applications were tried, and were followed by very marked improvement in the sensibility. M. Charcot has mentioned another case of the same kind which occurred in his practice (*Progress Médical*, Jan. 20th and 27th, 1877).

To sum up, then, we find that an affection of sensation, general and special, of every order, may be met with in a considerable variety of conditions besides hysteria, and that which is due to hysteria differs in no way from that which results from other causes, gross organic lesions not excepted. We find as a rule the whole realm of sensation involved, but in the hysteria, as well as in the other conditions, we may find one special sense, or certain districts of skin unaffected; thus, in the case of lead-poisoning, the sensation of the foot was nearly normal, whilst everywhere else the patient was anæsthetic.

The affection of sight, again, is in all quite different from that seen in most cases of organic hemiplegia where the optic centres are involved, for in these we find hemiopia—*i. e.*, blindness of that half of the field of vision in each eye which corresponds with the paralysed side. In the cases of which I am treating, however, we find affection of the eye on the paralysed side only, the other eye being intact, and the affection consists of concentric diminution of the field of vision in all directions, which may, in some cases, amount to complete blindness. The exceptional case I have myself reported of organic hemianæsthesia, in which it was the opposite eye that was nearly blind, I leave, as this was an anomaly for which I am unable to account.

Another feature which the hysterical cases have in common with those due to other causes, is the transitory nature of the symptoms. In several of Dr. Magnan's alcoholic patients, the sensibility returned within a few days or weeks after they came under treatment;

and, in at least two cases in which the hemianæsthesia appeared to be due to an organic lesion, sensation returned after the metallic applications.

I shall not attempt in the present paper to enter upon the difficult question as to the mechanism of this singular condition, whether in hysteria or in other maladies; still less shall I enter into the much vexed question as to the explanation of the efficacy in certain cases of metallic applications. My object has been to show that hysteria is by no means the only condition in which special and general hemianæsthesia is met with; that it is found not only in certain diseases—such as lead or alcoholic poisoning—in which we may suppose it belongs to the so-called functional symptoms; but also that it may be due to a distinct and localised organic lesion which can be accurately defined by necropsy. Instead of allowing ourselves to be dominated by blind scepticism when our attention is called to hitherto unnoted phenomena, let us bear in mind how very imperfect is our knowledge of the functions of the brain, and endeavour to apply our new knowledge to the elucidation of its problems.

LIFE-ASSURANCE AND RESIDENCE IN HOT CLIMATES.

By C. R. FRANCIS, M.B.Lond.,

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WITH reference to the extent to which residence in hot climates reduces, if at all, the eligibility of European life for assurance, I venture to offer the following remarks. Having been Staff Assistant-Surgeon to the dépôt at Warley at a time when recruits for the army in India were examined and admitted in large numbers, and having served for many years with European as well as native troops in various parts of that country, besides holding appointments in which the examination of lives for assurance formed part of the ordinary duties, I may perhaps be allowed to claim a fair share of experience on the subject. My only object being to invite attention, for the benefit of both assurance companies and of medical officers attached to them, to a subject which, so far as I am aware, is not discussed in any special English treatise, I hope I may be pardoned for thus noticing it; which I do in the hope that, if necessary, some abler pen will pursue it.

An impression—in a great measure erroneous—prevails with many assurance companies and medical practitioners that tropical residence is opposed to longevity. For the investigation of tropical lives—so to designate them—no general rule can, of course, be laid down. Each life must be dealt with separately on its own merits. But, unless the medical officer who examines it has been specially educated for the purpose, or has had special experience, his position, always responsible, as “one of the chief guardians of social morality and civilisation,”* becomes, in such cases, exceptionally so, and in some very embarrassing. The primary object of a life-assurance company is, naturally, to do business. At the same time, its desire is to obtain as many young and healthy lives as possible. Given ancestral longevity and freedom from evil hereditary influences, individual youth, health, and regular habits, with an occupation free from danger—such a life is obviously very desirable. This amount of unmixed good in a single individual is, however, rare. One or more disturbing elements frequently exist, and are provided for; but I am inclined to think, from a perusal of the examination-papers in use with various assurance offices, that, in the case of tropical residence as one of these elements, the inquiries might be so framed as to enable the medical examiner to arrive at the true value of the examinee's life with greater exactness than the present system in those offices admits. Some offices look so seriously upon tropical or Indian residence, that they occasionally double the premium: in others, lives in India are assured at home-rates. *In medio tutissimus ibis* is an axiom that may well be applied here. That the risk of life in India is, *ceteris paribus*, greater than it is in Europe must be admitted, because cholera and insolation—diseases which, in their season, destroy or damage life to a vast extent—cannot be eliminated from the calculation. Since the days when an undertaker in Calcutta offered 20,000 rupees for the business and goodwill of a brother undertaker for a single month (September) up to the present time, the value of European life in India has steadily increased. Improved systems of drainage, a better water-supply, facilities for rapid escape from noxious influences and for recruiting injured health, added to more rational modes of treatment and recognition of hygienic laws, have combined to reduce the mortality in later years from 40 per 1,000 during the three years ending 1813 to

* *The Medical Adviser in Life Assurance.* By E. H. Sieveking.