GENERAL RETROSPECT.

By J. R. Lord, M.B.

The Use of Strontium Bromide in Epilepsy.—In the *Lancet* of October 15th, 1898, Professor A. Roche (Dublin) continues his account of his treatment of epilepsy by the use of strontium bromide. Some cases he considers as cured, since there has been no recurrence of fits for periods varying from two to four years. He cannot say as yet whether the recovery can be called permanent. Its use always diminishes the fits, and any failure there has been he puts down to his directions not being carried out properly. His routine practice is to start with half-drachm doses night and morning, given with a bitter infusion, which are gradually increased. For full benefit it is necessary to continue the drug over a long period of time. He has never found it to result in any bad consequences, and has given it in drachm doses daily without intermission for three years, and three drachms daily for weeks without any untoward incident occurring. It does not appear to have any constitutional symptoms like potassium or sodium salts, and can be given in larger doses and for a greater period of time than the latter. He quotes Dixon Mann, who remarks that strontium salts cannot be considered as poisonous. Dr. Lochart Gillespie, who has given strontium salts in the treatment of exophthalmic goitre in children (*Brit. Med. Journ.*, Oct., 1898), holds the same views. The use of salicyclate of strontium in rheumatism is to be strongly recommended on the same grounds. In no case, as far as one knows, has the use of iodide or bromide of strontium ever produced a rash. Germain Sec has found the bromide salt of benefit in dyspepsia. This would make it particularly suitable in epilepsy. It ought to be remembered that the bromide salt is deliquescent, and therefore ought not to be prescribed in powder.

Colour Hearing.—Dr. Colman (London) gives some further remarks on this subject in the *Lancet*, January, 1898. Since his last communication in 1894 he has been able to investigate a number of additional cases. He has no reason to alter his opinions previously expressed as to the nature of the phenomena, viz. that they are "associated sensations" analogous to the cutaneous sensations of shivering, which is experienced at the sight or thought of an accident or at the sound of the squeak of a slate pencil. In this we cannot agree with him, for reasons which will be presently stated. The subjects are more frequently males than females, and the degree of education has no effect on the proportion affected. It is difficult to obtain any light as to the origin of the phenomenon, which nearly always dates back to early childhood. It has been found not to be due to the child learning the alphabet from coloured letters, cases being given in support of this. It has been found in all the members of one family, and to be in some cases inherited.

The tints excited are definite and characteristic, each for its own sound; they do not vary as time goes on, and are scarcely ever the same in two individuals. The colours are produced subjectively by the

hearing of certain words or sounds, and also by the thought of words. The phenomenon cannot depend upon any physical relationship between sound and colour, as has been supposed, because the same colour is not as a rule produced by the same word except in the one individual. The process is an individual and psychical one—a statement with which we entirely agree. Allied sensations may occur in subjects who do not at other times experience them; a distinguished physician gives a personal experience in this connection when suffering from some simple ailment: "The sound of a gong seemed to be seen as a pale ochreish disc in front of me a little larger than the full moon with an irregularly dentated edge, &c. When the gong ceased, this spectron persisted for a little time." Dr. Colman thinks there is a close connection between these colour sensations and the symbols which many people invariably associate with abstract ideas, and with the mental diagrams which always occur with others in connection with numbers, dates, and with serial events. These have been fully described by Galton and Flournoyand, and are more common than colour associations. He goes on to give some remarkable examples of these. One man could not think of "value" without appearing to see a particular gable of the private house of a professor of political economy who had been his instructor on the subject. The number twelve is frequently associated with a dial. Interesting diagrams of figures associated with the months of the year, the dates of great battles, &c., are figured. We cannot, however, consider these phenomena as intimately associated with colour hearing. We are inclined to look upon the latter as being always a neurosis, something of the nature of an obsession or besetment. The former is developed to a larger or smaller degree in all people, and facts difficult to remember are commonly associated with ideas and impressions, frequently of a nature so remote from the fact to be remembered as to be almost ludicrous. If, however, a person begins to associate, without rhyme or reason, numbers and events with curious mental diagrams, &c., the condition becomes a besetment. The one is a new creation of a neurotic mind, and the other is a perversion of a normal mental process. We cannot regard "colour hearing" as an associated sensation; we regard it rather as a reflex sensation abnormally developed. The sense of shivering already mentioned is also a reflex event after stimulation of certain emotional or sensory centres, but which is present normally. It would be interesting to know the family histories of Dr. Colman's cases, also as to whether any other neurotic stigmata were present, and further, to watch their subsequent mental history. We therefore cannot recommend the development and encouragement of these conditions, which after a time might become very distressing, and even lead to hallucinations of vision. In this connection we cannot do better than quote one writer's experience: "These various forms and colours which during childhood amused me, in time became an annoyance. The training received for professional life did not correct the changes in form nor the fantastic jumping about of the colours, which were not only different on every degree of the scale, but also on the same tone when words were sung. All sentiment was in singing on this account destroyed, and finally I decided to give up both singing and teaching."

Peripheral Neuritis.—This was the subject of a discussion at the annual meeting of the British Medical Association (Section of Pathology), 1895, and little really can be added to the views there expressed (*Brit. Med. Journ.*, Feb., 1896) saving the recent work of Dr. Fleming. Dr. Sharkey, in introducing the subject, remarked that the symptoms of peripheral neuritis had long been known. It was Graves who first suggested that they were the result of disease of the peripheral nerves, but it remained to Dumesnil, in 1864, to produce definite proof that this was so. There were many conditions put down to this disease which had not yet been proved to be so. We had, perhaps, been trying to draw too sharp a line between the peripheral and central nervous system, being too anxious to limit many of these diseases to the nerves, while the various agents producing them caused alteration in the centres as well. This has proved to be quite the case. Kahler, Pick, Korsakow, Eichhorst, Campbell, and recently Fleming have now demonstrated changes in the cord, and the latter in one case in the brain. What was the legitimate use of the term "peripheral neuritis"? It was doubtful whether we could use the term "neuritis" in the absence of those vascular phenomena looked upon usually as proof of inflammation. He constantly noticed that the condition found post mortem was segmentation and breaking up of the myelin. This was the so-called "parenchymatous neuritis." In other cases nothing at all was found; to these cases we would be more justified in using the term "nerve intoxication." In other cases still there were the vascular phenomena of inflammation present. A fuller pathology was needed, and the changes due to post-mortem influences particularly wanted investigation. The former has been much advanced by the recent work of Dr. Fleming (*Brain*, 1897). He found that there were moniliform swellings on the dendrites of nerve-cells in the brain. In the cord no changes were observed in the white fibres, thereby differing from various Continental observers who found changes, particularly in Goll's column. There were, however, hæmorrhages in various parts, and shrinkage and degeneration of cornual cells, with fewer processes and alteration in shape of the nuclei, and with nucleoli scarcely distinguishable. The peripheral nerves showed granulation of the axis cylinder, also proliferation of the segmental nuclei. There was degeneration of myelin with increase of leucocytes and connective-tissue cells. The perineurium was slightly thickened on its inner side, with a varying amount of exudation between it and the nerve-fibres. In the epineurium there was little that could be considered abnormal. The blood-vessels in the peri- and endoneurium showed marked changes. There was distension and proliferation of the endothelial cells of the intima, and a similar change, only to a less degree, in the media and adventitia. In the larger arteries a hyaline change had occurred in the adventitia. These changes in blood-vessels were first described by Minskowski in 1888. In some nerves corpora amylacea were seen. Dr. Batten showed in a case of tabes changes in the end-organs of nerves (*Brain*, 1898). Can, however, the changes described by Fleming be put down to true inflammation? Can nerve tissue ever inflame? There is reason to believe that the fibro-vascular changes seen in nerve tissue are often secondary to nerve atrophy. To continue Dr. Sharkey's address,

he remarked that in multiple neuritis the terminal portions of the nerves were nearly always affected. We have, however, no proof that this is so. He suggested two explanations; perhaps the peripheral ramifications were so delicate, or perhaps it was due to their being the farthest removed from the nerve-cell. Dr. Mott later said that it was possible in many cases of neuritis to explain the symptoms by Marie's theory. The nutrition of the nerve depended upon the cell, and it was reasonable to believe that any toxic agent in the blood would be absorbed by the dendrons, and would show its effects by changes in the remote portions of the cell, namely, the neuron and its peripheral terminations. Dr. G. Elder thinks that the neuritis of pregnancy is caused by the poisoning of the nerve-cells in the cord by the increased metabolism and production of effete matter associated with pregnancy (*Lancet*, June, 1896). Dr. Sharkey thought it still more remarkable that the poison should select certain nerves,—the extensor muscles of the legs in alcoholism; the extensor of the fingers and wrist in lead; in diphtheria the muscles of the throat and intra-ocular muscles. To these we may add the optic nerve in tobacco poisoning, and the cranial nerves in syphilis. Neuritis in the sympathetic system he thought required fuller investigation, and mentions that some cases of cardiac disease may be due to disease of the vagus. Dr. Campbell (Rainhill) has described extreme degeneration of the vagus in general paralytics with fatty heart. Dr. Mott, at Claybury, cannot, however, confirm this, and, after examination of the vagus in many cases where there has been fatty heart with invariably negative results, comes to the conclusion that it is rare, and points out that there are an immense number of sympathetic fibres unstainable by the Weigert method (*L. C. Asylums Report*, 1898).

Dr. Carr (*Lancet*, September, 1897) describes a case of dilated stomach combined with peripheral neuritis. He thinks that there are grounds for supposing that the effete products produced in the former may answer for the production of the latter. On the other hand, Dr. Russel (*Brit. Med. Journ.*, 1896) reported a case of peripheral neuritis in which there was enormous dilatation of the duodenum, which he thought might be due to neuritis affecting the vagus.

General Paralysis: its Ocular Symptoms and Clinical Groups.—The name of Bevan Lewis will always be associated with the pupillary phenomena of general paralysis. His observations were published in the West Riding Asylum *Reports*, vol. vi, and also in his *Text-book of Mental Diseases*. In the *British Medical Journal* for April, 1896, a further paper is published dealing with the ocular symptoms of general paralysis with special reference to its clinical groupings. The first part of the paper is devoted to a most excellent summary of the anatomical details involved in the reflex loops for contracting and dilating the pupils, and the associated movements in accommodation. This is followed by a digest of the functional activity of the iris and its abnormalities, in which important points are given, with a view to the elimination of all possible fallacies before coming to the conclusion that there is present a morbid condition of the nervous system. This part of the paper is a very important one, and in examining the pupil, such points as the possibility of adhesions between iris and lens capsule producing inequality, the necessity for distinguishing between the rhythmic

oscillations produced by the respiratory efforts and "hippus pupillæ," the dilatation of the pupil by sensory stimulation and psychical conditions, &c., should always be borne in mind. In the next part of his paper Bevan Lewis allots to himself a difficult task, and attempts to associate certain pupillary states with other symptoms, dividing general paralytics into five different groups. In Group 1 there is a moderately large pupil, becoming more and more dilated, rarely unilateral, and the Argyll-Robertson phenomenon; the lesion being in the motor segment of the reflex pupillary loop, probably nuclear (third nerve), lesion of Meynert's fibres being rejected. Sooner or later there are unduly exalted deep reflexes, but seldom ankle-clonus, and also increased myotic irritability. The speech troubles are a marked and early symptom, together with excessive facial tremors. The exalted knee-jerk is not a sequel to convulsive seizures. These symptoms are united with great optimism and profound dementia. The second group comprises a number of cases presenting mydriasis, with associative iridoplegia rapidly passing into cycloplegia. This is the earliest symptom. There is a lesion in both sympathetic and motor segments. Spinal symptoms are not a prominent feature, but there are early speech troubles of a profound nature ("drunken speech"). The mental condition is one of notable egoism, self-assertion, and argumentative tone; and acute excitement with frequent convulsions is a common occurrence towards the end. They usually run a rapid course, and five out of the twelve were syphilitic. In the third group the pupils tend to become small and spastic, and the Argyll-Robertson phenomenon is again present. There are other symptoms of a tabetic nature, such as absent knee-jerks, failure of equilibriation, and locomotor inco-ordination and defective sensation. The articulation is very defective, and mentally such optimism with excitement and profound dementia is a marked feature. In this group convulsive seizures are rare. The fourth group comprises cases presenting late eye symptoms, with paralytic mydriasis and partial reflex iridoplegia for light only. There is present ataxic paraplegia, limited to the lower extremities, with great facial ataxy and extreme speech troubles. Profound mental enfeeblement is a sequel to epileptiform seizures. Usually sensibility remains unaffected. In the fifth group the mental symptoms preponderate. There are no oculo-motor symptoms except occasional inequality, and the disturbances of speech, equilibriation, locomotion, and sensation, are usually absent, also convulsive seizures. The mental state commonly is from the first a dull heavy state with advancing mental enfeeblement. *Post mortem* in these cases, 75 per cent. exhibited no adhesion over the motor cortex, and in 44 per cent. they were absent entirely. When adhesions were present they were usually over the precentral regions. Grinding of the teeth was a persistent feature in one case where the adhesion was marked over the right lower central region. In previous cases this symptom usually occurred when the part most involved was the left lower central region.

We notice the absence of melancholia as a prominent symptom in any of these groups, a symptom which appears to be present in a fair proportion of female cases. The inclusion of the cases composing the fifth group as general paralytics, a series of cases which Mickle is inclined to regard as general paralysis pure and simple, is a noteworthy

feature, and one which raises an important question. General paralysis is undoubtedly progressive dementia and paralysis, and is supposed to be a pathological entity. There is some reason to doubt this. Dr. Mott is gradually accumulating evidence that general paralysis and tabes dorsalis are pathologically identical, with syphilis as the most important ætiological factor. The actual pathological process, there is reason to believe, is a more or less hurried premature senile decay, the fact of its premature occurrence alone separating it from senile dementia. Some authorities will, however, decline to recognise Group 5 as general paralysis, and certainly clinically and pathologically there is a striking difference between this group and the previous ones, although it is probably only one of degree. The inclusion of these cases raises a difficulty in comparing the statistics of the pupillary phenomena. It would appear to be almost impossible to diagnose these cases at once. The gradual progression of the enfeeblement of mind and body alone, raises the suspicion of general paralysis. *Post mortem* some of the most distinctive features are absent, and without a previous knowledge of the case many pathologists would probably miss its real character.

Drs. Dawson and Rambaut (Dublin) have published the results of a study of the pupils in forty cases of undoubted general paralysis (*Brit. Med. Journ.*, September, 1898). They find inequality in 92·3 per cent. of cases, alteration in size in 78·2 per cent. (no marked increase of dilated over contracted), alteration of the reflex dilatation in 95 per cent., of consensual reactions in 67·5 per cent., of direct light in 42·5 per cent., and the Argyll-Robertson phenomenon was present in 30·76 per cent. of cases. On comparing these results with control cases they came to the conclusion that the value of the inequality and the reflex dilatation is *nil*. Bevan Lewis is, however, of the opinion that inequality without loss of reactions is important, as it may be the first sign of cortical trouble, the loss of reactions and the late inequality being due to implication of cilio-spinal and bulbar territories. Siemerling (*Berl. klin. Woch.*, November, 1896) gives the results of examination of the pupils in 3000 cases of general paralysis, and finds the Argyll-Robertson pupil in 68 per cent. of cases. He examined the pupils in 9000 cases of insanity in all—a momentous piece of work, if the mode of procedure ensured such accuracy as is characteristic of Bevan Lewis's work.

There is, however, something very unsatisfactory in all these statistics. In the first place the personal factor of the examiner must be considered, especially in such results as "sluggish," "slight," &c., and probably the statistics alone to be relied upon are those which state that certain reactions are "absent." At the best, statistics of the pupil anomalies in general paralysis, without any sort of separation into stages, early and late reckoned together, are more or less valueless. The pupil anomalies are not a fixed quality; they are progressive, and change with the evolution of the disease, the initial change and the subsequent progression being different in different cases, according to the parts involved. Commonly inequality occurs first, then loss of reactions in various order, the most usual order being reflex dilatation, then consensual, then direct light (Argyll-Robertson), and ultimately

the pupil does not contract on convergence (complete iridoplegia), and finally absolute loss of all power of accommodation is superadded (cycloplegia). It is the progression of these changes which is important. An ideal research would be to examine the pupils at short intervals, and state the results after the decease of the patients. Thereafter it would be some value to know, in the case of a general paralytic running his course in three years, that during the first six months his pupils were in one condition, in the second six months in another condition, &c. The same with a case lasting only twelve months. Thus some results could be come to as to the predominant pupil change associated with other prominent symptoms, and the rapidity of the disorder. Statistics on these lines would be of real value in differential diagnosis.

Erythromelalgia.—It is to Weir Mitchell that we owe the first real clinical description of this condition. Its pathology, however, still remains obscure. In his paper which was published in July, 1878 (*Amer. Journ. of the Med. Scienc.*), he represents the condition as due to some unrecognised type of some spinal or cerebro-spinal disease, and prophesied that in future it would be found in connection with distinct lesions in definite regions. This is proving to be the case, so much so that it is being no longer recognised as a disease *sui generis*, but rather as a symptom in the recognised diseases of the cerebro-spinal system. There is probably much ground to support Osler's (1) opinion that many of Weir Mitchell's cases ought to be classified as Raynaud's disease. A communication on erythromelalgia associated with disease of the spinal cord has recently been made by Dr. Collier, London (*Brit. Med. Journ.*, August, 1898), and an account of ten cases is given. In 1894 Lewin and Benda,(2) after studying many cases, stated that in their opinion the condition was a symptom of definite disease of the central nervous system, or of functional disease. Auerbach and Edinger in 1897 (3) reported a case of tabes in which this condition occurred in the right foot, and on examination after death degeneration of the posterior roots of the lower lumbar and sacral nerves, almost limited to the right side, was found. The spinal ganglia and peripheral nerves were found to be normal. The tract in the cord principally affected was the postero-internal on the right side, close to the septum. A digest of Dr. Collier's cases will be of interest.

Case 1 was one of disseminated sclerosis, and the erythromelalgia occurred in both feet, and in course of time extended as high as the knees. The pain and vaso-motor symptoms always appeared simultaneously, the attacks at first being spontaneous only, but afterwards being always induced by the dependent position. She was relieved by the application of cold, and by bandaging tightly with Martin's bandage.

Case 2 had the same spinal condition as the latter, but in this case the erythromelalgia was one of the first symptoms of her condition, and was at first thought to be due to some functional disturbance. It first appeared in the feet upon walking, the recumbent position or the application of cold at once causing the condition to disappear. It could be usually induced in either foot by a dependent position, but not always. There were no persistent vaso-motor palsy or trophic

changes, and it sometimes occurred spontaneously in the recumbent posture.

Cases 3, 4, 5, and 6 also suffered from disseminated sclerosis. In Case 3 the erythromelalgia occurred spontaneously at first in both feet when in bed. The dependent position, although it increased the symptoms, could not of itself induce the condition. Elevation, however, alleviated the symptoms. Eventually permanent vaso-motor dilatation appeared, and deepened in intensity as the attacks went on. Nine months later paraplegia occurred, and the vascular disturbance gradually disappeared. In Case 4 the distribution was peculiar, occurring on the outer side of the left foot, including the two outer toes, and reaching the external malleolus. The whole left leg below the knee showed a curious *tache*, not unlike urticaria scripta. A similar condition to the latter is reported by Senator.(4) Case 5 was a noteworthy one. The operation of double oöphorectomy had been performed, and was followed by severe neurasthenia. The attacks of erythromelalgia came on three years ago in the hands and feet, sometimes affecting the hands alone. The attacks were accompanied by excessive tenderness and profuse sweating of the parts involved. The effects of cold and position were typical. In this case its occurrence was the first symptom of organic disease of the nervous system. In connection with oöphorectomy it is interesting to note that in several published cases in males erythromelalgia has been associated with aspermatism. In Case 6 the areas affected were the neck and head.

Cases 7 and 8 suffered from tabes dorsalis. In Case 7 the attacks of erythromelalgia occurred when walking or sitting, and occasionally when lying in bed. It affected both legs up to the knees, and afterwards the hands. There were no tender points or persistent vaso-motor palsy or trophic changes. Tingling occurred, but no pain, the latter being explained by the regions being analgesic. In Case 8 it occurred symmetrically, affecting both hands. There was only one attack, and that occurred simultaneously with a gastric crisis. Alteration of position had its usual effects.

In Case 9, one of myelitis, the condition varied much in degree. It occurred in the feet, and sometimes extended to the middle of the calf. Case 10 had only a slight degree of erythromelalgia, its distribution being from the knees downwards, the redness not being sharply defined as in the other cases. This case was chiefly one of traumatic neurasthenia, but the existence of slight sphincter trouble and persistent foot-clonus suggested that there was some lesion of the cord. The occurrence of erythromelalgia strongly supported the probability of this.

All these cases occurred within a period of six months, showing that erythromelalgia is not a rare symptom of spinal cord disease. It has no doubt been previously overlooked. In several of the cases there occurred only spontaneous attacks; afterwards the conditions became frequently induced by the dependent posture, and later a condition of permanent vaso-motor palsy made its appearance, the attacks meanwhile continuing. This sequence suggests an irritative lesion of nerve structures governing the blood-vessels being the cause of the vascular crises, and of the progress of this irritative lesion to a partially destruc-

tive lesion being the cause of the persistent vaso-motor palsy; these phenomena in vaso-motor nerve elements being parallel with pain followed by anæsthesia in sensory nerve elements, and with spasm followed by motor paresis in motor elements. In all the cases the vascular change was never preceded by the sensory disturbance, but either preceded it or the two appeared simultaneously. It seemed as if the sensory disturbance was a local result of the altered vascular condition of the part, and erythromelalgia may be the first symptom of organic disease of the cord, and of great value in diagnosis, and especially valuable in the differential diagnosis between functional disease and disseminated sclerosis.

Dr. Collier's paper is a very valuable one, but its value would be enhanced if he could, as opportunity occurred, supply post-mortem and microscopical descriptions of the lesions in his cases.

Dr. Urquhart has had an interesting case in which the fingers were affected. The patient, a young lady, obtained relief by the use of hot water. She afterwards developed acute mania, which was followed by dementia. She eventually recovered after a course of thyroid treatment, and has had no return of the erythromelalgia. It is probable that this case, like some Weir Mitchell described, was more related to Raynaud's disease than erythromelalgia.

The Hour of Death.—C. F. Beadles (Colney Hatch) has been at great pains to determine which hour in the twenty-four is most deserving of being termed "the hour of death" (*Brit. Med. Journ.*, 1896). His conclusions are founded upon a careful inquiry as to the time at which death occurred in some 5424 cases, male and female, all of whom died whilst resident at Colney Hatch Asylum—a task which must have taken considerable time and energy. The circumstances under which these statistics were compiled were extremely favourable. As Mr. Beadles remarks, in asylums the time of death is recorded with a degree of accuracy which surpasses that of any other institution or amongst the public at large. His results are interesting and somewhat remarkable. "The great rise that takes place in the death-rate amongst the males between the hours of 5 and 7 a.m. places this some one or two hours later than the view popularly held, which is generally referred to by the more ignorant as about midnight, and by the better educated as in the small hours of the morning, between 2 and 5 a.m. The entire absence of a great rise in the early morning amongst the females is noticed, and in its place the occurrence of a decided fall. On the other hand, the most fatal hour with these females occurs shortly before noon, and again between 6 and 7 in the evening; but throughout the twenty-four hours the recording line of the females neither rises nor falls to the same degree as the males, but remains more steady."

Cold and Glycosuria.—Dr. Sankey records a case of glycosuria in which the condition occurred coincident with the fall of the weather, and the recovery with the break of the frost, which he has noticed each winter since 1893 (*Brit. Med. Journ.*, 1897). This is a most interesting case, particularly when it is correlated with conditions such as paroxysmal hæmoglobinuria and albuminuria, which are known to be in some way connected with exposure to cold. Some more cases confirming Dr. Sankey's observation would be of extreme value.

The Power of Nature in Disease.—This is the subject of an article by Dr. Wallace Anderson in the *Scottish Medical and Surgical Journal*, September, 1898. The title would suggest something of academic interest only, but this is not so, the outcome being very practical, stating, as it does, points which ought to guide us generally in the treatment of disease. The first section is largely historical, and partly a statement of the whole case, a concluding chapter being promised which will give in more detail, different forms of disease exemplifying and illustrating the conclusions already arrived at.

To begin with, Dr. Wallace Anderson states what is practically the *raison d'être* of his paper, the tendency of medical art and craft to supersede the methods of nature in the cure of disease.

"Amid the activities and resources of art, never more abundant and more fruitful than in our own day, one is apt to lose or to ignore the underlying and enduring methods of Nature. Man claims art for his very own. And the ways of Nature that lie deep are apt to be unnoticed and to remain unknown. Our art asserts itself to-day as if Nature were a thing of the past. The mother of us all, at whose feet we have played our little part from age to age, is at last gone, and she has left us microbes. We think not. We think there is still something to be gained by the study of her methods and ways of working, as well as of the works themselves, of her methods of healing that are of no time or fashion, of her ways that were never new and never to be old."

The subject is one of great difficulty because of the many and conflicting views one can take of it. From one point of view, Nature, whatever meaning we may attach to it, might appear to have another function besides the preservation of life, *i. e.* the destruction of life. There can be no evolution unless there is death of previous and presumably inferior species. If this view is taken, then the effort of the body in resisting disease is one process of Nature opposing another working in an opposite direction, the result showing which was the beneficent process in individual cases, the fittest surviving and the weaker being extinguished. What is the position of medical art if this view be taken? Clearly one of inactivity; because in the one case its help is not needed, and in the other case successful interference would mean the survival of the unfit, which is not Nature's intention.

From another point of view, however, it can be said that Nature ordains that the body should survive until its initial stock of vitality is used up. If disease occurs, then it obviously interferes with this intention, and Nature resists. In other words there is a combat between the power of Nature and the power of disease. What, then, is the position of medicine to this view? Obviously one which would co-operate with Nature, which could be accomplished in two ways; (*a*) by learning Nature's methods and supplementing them, and (*b*) by removing the obstacles in Nature's way and by carrying war into the enemy's camp.

To which of these methods do we give precedence? Dr. Wallace Anderson maintains that there is a tendency in these days to vaunt the latter and neglect the former, and in this he is probably correct, but whether our treatment suffers thereby is another question. The methods of Nature are, generally speaking, obscure, and thereby difficult to supplement, and our medical art runs the risk of being reduced to one of

inactivity and of expectancy. This position is not an agreeable one to the modern physician. By adopting other methods, however, he runs the risk of interference with a natural process already working beneficially, and thus lessens his chance of success. This being so, then it is surely his duty not to neglect the methods of Nature, but rather to study them, and to modify his treatment accordingly.

What, however, is the result of the most enlightened treatment? Are we diminishing the sum total of disease? Or are we keeping alive decrepit and degenerate people with predispositions to disease, which will be passed to their children,—people who, if left to Nature's cure, would die and become harmless? Is the human race healthier and stronger? The best answer we can give is only a partial denial or affirmation to these questions. Some diseases have practically disappeared, others have lost some of their virulence, but the large proportion appears to be always with us. The average human life is, however, stated to have been prolonged. But can we put this down to the actual treatment of disease? Not entirely; acquired immunity and better hygienic conditions of life have surely contributed largely.

We have considered this point at length because it is the most noteworthy feature of Dr. Wallace Anderson's paper. The rest of the paper is largely historical. He begins with Hippocrates, before whose time medicine was closely allied with philosophy, and who gave medicine a new life, the key-note of which was his famous aphorism, "Nature is the healer of our diseases;" an aphorism in which was centred all his practice and teaching. What Hippocrates understood by Nature does not admit of a precise answer. Undoubtedly he uses the word in very different senses.

For example, he speaks of nature as opposed to art; or, again, of nature as we understand the term human nature; or, again, more specifically of the individual nature, constitution, or temperament.

It seems probable that he includes under the term nature all the functions of the body which are disturbed in diseases, all of which, in the aggregate, constitute the φύσις or nature of the body, and which are themselves the sources of healing. A further question is raised as to whether he believed nature to be a deliberating intelligent force. The answer is in the negative, an opposite conclusion being a misconception of Hippocrates' meaning. From the time of Hippocrates the doctrine of a vital force of nature, acting directly and essentially as a healing power, has never been lost sight of, and has often been the subject of great controversy, and even of bitterest censure. Dr. Wallace Anderson sketches its history down to our own times, but we regret that space will not allow of us following its career of varying vicissitudes so delightfully and artistically told in his paper. The opinions of Celsus, Galen, Paracelsus, van Helmont, Stahl, Sydenham, &c., are given and their influence described, Sydenham and Cullen deservedly occupying prominent positions.

Moveable Kidney and its Influence on the Nervous System.—Moveable kidney usually produces symptoms which are fairly diagnostic, although they vary somewhat in different cases. The actual palpation of a moveable kidney presents no difficulty usually; but in some cases, however, owing to the range of movement being small, or to the presence

of some condition such as excessive obesity, its palpation is by no means easy. Its symptomatology is not so definite as to allow of a diagnosis being made unless it is confirmed by abdominal palpation.

Dr. Suckling (*Edin. Med. Journ.*, September, 1898), in a paper on this subject, asserts the condition to be far more common and of more importance than most physicians would probably agree to. He would appear to have examined the abdomen with signal success as regards moveable kidney.

"Thousands of women are in bad health and unable to perform their duties in life, and suffer from nervous exhaustion, owing to moveable kidney. When they seek medical advice they are often not requested to remove their corsets. Out of 100 women, 42 had dropped kidney; and of the 100 men, 6 had dropped kidney; in many cases both kidneys were dropped. I could give several hundreds of cases if it were necessary."

Statistics of conditions diagnosed clinically are always open to question, but taking the results of a large number of post-mortems, moveable kidney is rarely found. Out of 110 females it was found in one case, being due to the renal artery coming off from the bifurcation of the aorta. If the condition had been a common one, it would surely have been demonstrated so on the post-mortem table. Dr. Suckling's method of palpation of the kidney is worthy of note. One hand is used in case of the right kidney. The thumb is placed under the last rib at the back, and the fingers in front below the costal margin. If not felt at once, on the patient taking a deep inspiration the kidney will slip into the fingers and can be easily slipped back. It is necessary, however, in difficult cases to examine the patient sitting or standing. A similar procedure is adopted with regard to the left kidney, only both hands are used, the left arm being placed around the body, the left hand being used to palpate posteriorly, while the fingers of the right hand are used anteriorly.

The subjective symptoms are said to be pain, mental depression and hypochondriasis, diarrhœa, constipation, vertigo, enlarged spleen, dyspepsia, albuminuria, agoraphobia, exhaustion, epilepsy, colic, &c.—these symptoms were not present in all cases, but each was a marked feature in individual cases. Its occurrence in women is put down to tight lacing, or a fall or strain, tall people being very liable. In this Dr. Suckling differs somewhat from other observers. Loss of tone of the abdominal walls due to numerous pregnancies is a well-recognised cause, and so also are congenital conditions. In asylum practice it occasionally occurs, but was only found in two cases out of 693 women admitted to Hanwell last year.

Dr. Suckling's treatment consists in the wearing of a belt of his own invention, a woodcut of which appears in his paper. He claims that his belt not only removed the symptoms, but in some cases cured the condition, amongst others a case of epilepsy, where the fits ceased after its use.

Some Trophic Lesions.—Trophic changes resulting in permanent death of various parts of the body are of great interest from both ætiological and pathological standpoints, especially when the conditions occur symmetrically.

E. R. Rouse (Colney Hatch) records (*Lancet*, 1896) two cases of puerperal mania with gangrene as a complication, and which are perhaps unique, especially as recovery was complete in one case and partial in the other. In the first case the woman was thirty-one years of age, and was admitted in a state of acute mania. A week later there developed in rapid succession gangrene of both feet, one finger, and the right ear. The lochia became putrid and offensive. The condition as regards the finger and ear cleared up quickly, but progressed unfavourably as regards the feet. In spite of energetic treatment, signs of septic poisoning occurred, and amputation was proposed and carried out successfully. She eventually made a good recovery. In the second case the woman was aged thirty-seven, and was admitted suffering from acute mania. In about fourteen days the right leg became gangrenous, extending to just below the knee. The leg was amputated, and, after several recurrences of gangrenous patches in the flaps, healing occurred by granulation. The mental condition improved for a time, but soon relapsed. Dr. Mott examined the amputated limb and found venous thombosis to have been the chief cause, coupled with endarteritis of the larger arteries.

In both cases it is unfortunate that the condition of the heart and circulation is not recorded beyond the general remark that their physical condition was normal on admission. This applies more especially to the first case.

J. R. Lord (Carmarthen) describes a case of symmetrical gangrene of the feet occurring in an early general paralytic (*Brit. Med. Journ.*, 1898). The patient presented the usual symptoms of general paralysis with unequal pupils, the reactions being sluggish on the dilated side. In four days after admission, her feet were found to be nearly black, with great tenderness and swelling about the ankles. A small patch of a similar nature occurred on one side of the left knee-cap, which disappeared in a few days. The gangrene in the feet was progressive, and was followed by great sloughing of the buttocks; septic poisoning and diarrhœa supervened, and the patient succumbed just a month after admission. In this case, the patient's physical condition was taken the day before the gangrene commenced, and there is great difficulty in explaining the occurrence of the latter. Embolism could be practically excluded; diabetes also, and there had not been any traumatism or injury. It is possible that syphilitic endarteritis was present, resulting in thrombosis. Although syphilis is not mentioned in this case, yet a careful inquiry into the previous history in general paralysis will frequently reveal specific disease as an ætiological factor. Otherwise the condition can only be put down to some change in the nervous system.

The so-called trophic changes in insanity can frequently be explained by conditions which are not in any way peculiar to asylum inmates, such as embolism from valvular incrustations or phlebitis, and thrombosis in degenerated arteries, &c. In every case the cause ought to be carefully investigated, and such conditions as these eliminated before coming to the conclusion that the nervous system is at fault. The *gangrène symétrique* of the French ought to be borne in mind—a condition which appears to depend upon anæmia and enfeebled circula-

tion. There appears, however, to be a marked tendency to trophic changes occurring in the insane which are not explicable on ordinary grounds, and one ætiological factor may be mentioned here as noteworthy. In each of the cases quoted the condition occurred in January. This would point to cold as a predisposing cause, and it would be interesting to know the ratio between the number of cases of sloughing bedsores, gangrene of the lungs and extremities, &c., occurring in the winter, and the number occurring in warmer months. It would appear to be very necessary to see that in acute cases, and in cases liable to gross trophic lesions, great care is exercised to avoid chill, especially in winter, not only by careful clothing during the day, but by guarding against the temperature falling in their rooms and dormitories at night-time below a certain level. The latter is important because of the difficulty in keeping patients covered during the night.

Leg Pain in Insanity.—Dr. Sankey, at a branch meeting of the British Medical Association, read a paper on this subject (*Brit. Med. Journ.*, 1898). He defined "leg pain" as anything between the dull ache of some cases of general paralysis, spoken of as a sense of weight, and the acute lancinating pain, which was the leg pain to which he especially referred. It was noticed frequently in general paralysis, but occurred in other cases. From the description of patients when sufficiently intelligent to give one, this pain appeared commonly to commence in the feet and extend to the knees. It was frequently the precursor of contractions of the feet and malnutrition of the muscles, and was, in his opinion, of grave importance, meaning that mental recovery was unlikely, and that bodily degeneration was commencing. He gives two cases in full, and states that the affection was probably due to a degeneration slowly involving the cord, probably secondary to the brain disease which caused the insanity; the form of degeneration being, he believed, sclerosis, or a chronic spinal meningitis, but it might differ in different cases. We should like some post-mortem proof of these statements. We are of the opinion that the condition in the cases he gives as examples was due mainly, if not entirely, to the presence of delusions, one characterising his pain as being like "wiring" and "traps," and the other like "electric shocks." We do not think it is in accordance with general experience that our general paralytics suffer from "leg pain" unless they are classified as tabetic, and even then the condition if it occurs is present only in the earliest stages, the pain shooting down the leg and not in the opposite direction.

Spontaneous Rupture of the Heart in the Insane.—This is a rare occurrence, considering the prevalence of cardiac degeneration in insanity. Cases have been recorded from time to time, Beadles describing one in 1893 (*Path. Soc. Trans.*). Recently two cases have been recorded, each presenting unusual features. In F. O. Simpson's (Wakefield) case (*Brit. Med. Journ.*, 1896) the rupture was complete, the part of the heart affected being the central part of the posterior wall of the left ventricle. In Quain's cases (*Path. Soc. Trans.*, vols. iii and xii) 76 per cent. occurred in the left ventricular wall, but 43 were anteriorly. The heart in Simpson's case was fatty, being both degenerated and infiltrated. The arteries were atheromatous. In

Dr. Hunter's (Whittingham) case (*Lancet*, 1897) the rupture was incomplete, owing to the great thickening and adhesion of the pericardium. It was situated in the right ventricular wall anteriorly, and communicated with the ventricular cavity by a ragged channel. To quote Quain's cases again, 13 per cent. occurred in the right ventricular wall, in nine of which it was situated anteriorly. There was again present fatty degeneration and atheroma, and also in this case chronic interstitial nephritis. In neither case do the writers record the condition of the coronary arteries, which were most probably much diseased. In both cases the age was over sixty, in Hunter's case seventy-seven. In neither case is there any mention of any excitement or strain; both were demented. It is extremely probable that in these cases a previous intra-muscular hæmorrhage, the result of the degenerated condition of artery and muscle substance, was the actual starting point of the rupture.

An Unusual Case of General Paralysis of the Insane, by R. D. Hotchkis, M.D. (*Glasgow Medical Journal*, June, 1897).—This case, that of a young man of 25, always regarded as simple, but tall and well developed, after business worry manifested considerable exaltation, followed by a period of comparative well-being, with "faulty and slight mental enfeeblement," succeeded by a state of acute resistive excitement, ending fatally. The post-mortem revealed a very extensive "pachymeningitis hæmorrhagica." In the motor region one section showed well-marked aneurismal dilatation of the arterioles. The question is whether such a case can be fairly classed as general paralysis, whether the symptoms from the outset were not due to the hæmorrhage, the recurrence of which after a period of attempted repair led to the simulation of three stages. The three stages of general paralysis are by no means an essential part of the disease, but the motor inco-ordination and disordered reflexes are and were apparently scarcely appreciable in the clinical history. Dr. Hotchkis has done good work in placing on record this case. Such records help to the clearing up of that rubbish heap of diagnosis which is termed general paralysis, and his remarks on this disease are in accord with the most advanced knowledge of the subject.

Penetration of Brain by a Ramrod.—Dr. Lacy Barritt, in the *Lancet*, January 7th, reported an interesting case of penetration of the brain by an iron ramrod, which was followed by complete recovery. The following are briefly the facts of the case, which was admitted under his care at the Johnston Hospital, Spalding. The patient, a boy fifteen years of age, while employed to scare crows, foolishly attempted to charge his muzzle-loading gun when the hammer of it was cocked and a cap was on the nipple, the natural consequence being that the gun went off. The ramrod which the boy was using at the time was an iron one $30\frac{1}{2}$ inches long, weighing $10\frac{3}{4}$ ounces, and measuring $\frac{5}{8}$ inch in diameter at its bulbous end. This was driven through his skull just above the left eyebrow, and made its exit in the region of the left parietal eminence. It was subsequently picked up fourteen yards away from the spot where the accident occurred, with the patient's cap transfixed on it. The boy was afterwards able in a dazed condition

to walk 200 yards to the farmyard and to carry his gun. He then drove three miles to the hospital, and on reaching this he was able to get out of the trap unaided. Shortly after his admission Dr. Lacy Barritt found him in a semi-comatose condition, temperature normal, pulse slow and regular. He could easily be roused, and would then answer questions rationally, but in a dull and hazy manner. There was impaired movement of the right arm, and marked dilatation of the left pupil, which reacted sluggishly to light. A slight discharge of brain substance occurred through the parietal wound. This latter could easily admit the tip of the little finger, the wound of entrance being of course smaller. Expectant treatment was used, and on the fifth day the patient became more conscious, answered questions readily, and could use his right arm more freely. From this on he progressed favourably, and was allowed to get up three weeks after his admission into the hospital. At the same time the wound of entrance healed, and the wound of exit also nearly completely so. Subsequently he made a perfect recovery mentally, and practically regained the full use of his arm. Evidently the track of the ramrod was through white matter, except of course at its entrance and exit; and it must have been above and internal to Broca's convolution, and just anterior to the upper portion of the ascending frontal convolution; and thus the centre for speech, and that for the arm, fortunately escaped being damaged.

This case is very similar to one reported by Dr. Sanderson Christison, of Chicago, in that both patients were very slow in answering questions while otherwise exhibiting no mental peculiarities. Dr. Christison's patient, a female 44 years of age, had a neuro-gliomatous tumour of the frontal lobes; this did not reach the cortex anywhere except towards the median line, and it extended backwards to the borders of the lateral ventricles.

In addition, the case reported by Drs. Francis, Starr, and van Gieson, namely, a female 45 years of age, who likewise had a neuro-gliomatous tumour implicating the frontal lobes and the anterior knee of the corpus callosum, and which did not reach the cortex anywhere except towards the median line, also showed the mental phenomenon of slow answering of questions, but at the same time she did so in a rational manner.

(1) Osler's *System of Medicine*. (2) *Berliner klinische Wochenschrift*, 1894. (3) *Nervenheilkunde*, September, 1897. (4) *Berliner klinische Wochenschrift*, 1892.