A British Medical Association Lecture.

NOTES FROM PRACTICE.*

BY

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Prognosis in Heart Disease.

JUST now there is reason to avoid going from one extreme to the other. Murmurs are not all innocuous, as some seem to imply, but vary in character, and also as to which valves are involved. What is important is this: How does the heart act? Are there any signs or symptoms? If there are not, then the less a patient knows about his heart the better it is for him. In my opinion the presystolic murmur ranks first in seriousness; after this the aortic (regurgitant); and the most favourable is the systolic mitral—all referring to the left side of the heart. Again, all these murmurs must be considered in conjunction with the state of the wall of the heart.

The sinus irregularity of children, associated with the respiration, which at one time produced so much mental anxiety among doctors and patients, need not disturb us. The extra-systoles, easily detected, are not prognostically bad; these are generally missed pulse beats, seen mostly in old people.

The effect of cardiac diseases is really to be gauged in its extent by how much the ventricular action is affected. The most important cardiac irregularity is auricular fibrillation. Its constant association with the presystolic murmur makes this latter of serious importance; it also occurs in the cardiac sclerotic changes of elderly people.

The very slow pulses of old people, often accompanied with insensibility, and even fits, which we have all seen, are now known to be due to heart-block, the condition, of course, varying with the amount of disease in the auricular bundle obstructing the stimuli from auricle to ventricle. In the young the heart disease is generally rheumatic in origin; although the prognosis is good, still this must depend on the ventricular efficiency, tested by physical exertion. In middle life and onwards cardiac disease is due to degenerative changes in the musculature of the heart.

Of all drugs digitalis holds its own, but after this ranks theocine-sodium acetate; both are most useful when auricular fibrillation is present. It is generally thought that the value of digitalis consists almost entirely in slowing of the pulse, the drug having no effect on the left ventricle, but only on the vagus nerve, affecting the supraventricular tissues.

The Relief of the Right Heart.

There is no doubt that the heart is more often auscultated than percussed—in other words, the valves are more thought of than the muscle; also, the left side receives more attention than the right. This probably is as it should be, but there are times when the right side of the heart, especially the auricle, demands our thought and skill. When we are dealing with diseases such as pneumonia, valvular or muscular disease of the left heart, it is well to examine by percussion the size of the right auricle. Now there is not much difficulty in detecting an enlarged right auricle; the normal dullness of one fingerbreadth to the right of the sternum in the fourth interspace is increased to two, or perhaps three, fingerbreadths; the ordinary finger percussion is quite sufficient for all practical purposes. When this enlargement is discovered, then local depletion by means of a few leeches—three to six—is decidedly valuable. I have seen cases where, after application of leeches, the distress has been almost at once relieved; it is then that the action of digitalis and strychnine can have full play, for it is bad treatment to begin with heart tonics before the heart congestion is relieved, and often, also, before the alimentary canal is purged.

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Treatment of Acute Diarrhoea in Children by Saline Injection.

Acute summer diarrhoea in children is one of our greatest anxieties. I am not speaking of the comparatively mild cases which yield to ordinary remedies and dieting, but to those collapsed conditions in which sickness and constant diarrhoea are both present, and which are found mostly among the classes that live in poor and crowded thoroughfares. These cases, when possible, should be admitted as in-patients for hospital treatment; here alone can they be kept properly clean and fed, and in a thoroughly ventilated room. If we can manage to prolong life for a few days, recovery will frequently follow. It is often most difficult at first for the baby or child to keep down any food at all. It is in this condition that saline injections, given either by the skin or bowel, are of great and saving value. The injections must be given slowly and continuously.

Pleuritic Effusion.

When the right or left chest is three-fourths full of fluid or more, then aspirate or tap. I have seen two or three people die from simply sitting up in bed when one side of the chest was full. When the quantity of fluid is less than three-fourths there is no necessity for immediate action—in fact in a few days the fluid may not only diminish, but soon entirely disappear. There are two dangers in withdrawing the fluid—namely, a sudden acute congestion, or oedema of the compressed lung, producing an albuminous or serous expectoration in large quantity, resulting in serious obstructive breathing. The cases like this which I have seen have recovered, but fatal ones have been recorded. Again, the mere tapping or aspirating has resulted in immediate death. It is not wise to draw off the whole of the fluid, for the reason that when doing so syncopal attacks are apt to occur. The most common condition mistaken for an effusion is a chest tumour, which is generally malignant in character, but here the heart and other organs are not displaced.

Two other diseases may cause difficulty—namely, aneurysm of the thoracic aorta, and a hydatid cyst. It may be fatal to aspirate either. It is generally believed that the effusion is of a tuberculous origin; whether this be so or not, in my opinion a large proportion of these cases get well, and remain so. I do not remember seeing a serous effusion become purulent; when it is purulent it is so from the beginning. I know of no sign or symptom to distinguish between a purulent and a serous effusion—of course, one may make a shrewd guess. The temperature does not help us.

The Mania following Pneumonia.

I am not now referring to the ordinary delirium, or "delirium febrile," a delirium, as its name implies, which may come on in any case with high fever. Pneumonic delirium is not common, and it is often associated with the apical form. Perhaps one of the most interesting and practical points is that the delirium may be the first symptom noticeable in the disease—that is to say, the physician is called to see a case of delirium, and on examination of the lungs he discovers pneumonia. In young children this delirium has been mistaken for meningitis. The pneumonia is generally of the sthenic type and occurs generally in comparatively young people.

But the cases to which I wish particularly to call attention are those in which the mania follows the pneumonia. I have had the opportunity of seeing three of these cases, but the literature is exceedingly scanty. I think the reason of this scarcity is mainly because these cases occur in the hands of private practitioners and so do not get recorded. The following are the characteristic points in this form of pneumonia mania:

1. The pneumonia is of the sthenic or classical type.
2. The people affected are mostly of a neurotic temperament.
3. It generally occurs in youngish people under 40 years of age.
4. It is associated with great sleeplessness, and there seems great difficulty in the treatment of this symptom.
5. It is not essential that the disease be very acute or that much lung be involved—in fact, the amount of lung involved does not seem to bear any relation to the amount or length of stay of the mania.
6. It occurs after the crisis. The delirium, already mentioned, which occurs early in the disease, is as a rule a much more severe type of mania than that which follows the crisis.

7. The pathology, I suppose, is toxic, but I am unable to say why some people suffer in this way and others do not.

8. The prognosis of this mania is good; it should be looked upon as part of the pneumonia, and should not be especially treated as a case of mania *per se*. The question of asylum treatment need not be considered. I mention this point because in one of my cases the doctor in attendance considered the mania should be treated in an asylum.

9. *Treatment*.—Perhaps the most important thing in this trouble is to treat the sleeplessness. Food is the best hypnotic, but it may be necessary to give some paraldehyde or some other narcotic. The bowels should be attended to. A tactful, wise, and firm nurse is a necessity, and convalescence should be carried out in the country.

On the Late Discovery of Physical Signs in Pneumonia.

The signs to which I wish to draw attention are dullness on percussion, bronchial breathing, and bronchophony, which, in my opinion, not infrequently occur, or rather are discovered, comparatively late in the course of the disease. The following paragraphs occur in two standard works on medicine:

"Usually up to the third day after the chill the percussion note over the affected part becomes dull, the respiration of a blowing character. Bronchophony now makes its appearance."

"On the second day a dullness more or less appreciable reveals itself in the part originally affected, and there are also heard in that situation anomalous signs which become more and more decided, such as a fine and very equal crepitant rle, heard during respiration."

These paragraphs show the generally acknowledged time as to the appearance of the physical signs of pneumonia. From observation of cases of croupous pneumonia that have come under my care, I believe that the physical signs, such as dullness on percussion, bronchial breathing, and bronchophony, occur later in the disease than is generally supposed; or perhaps it would be more correct to say that there is a larger percentage of cases with the above signs lately discoverable than our reading or teaching has hitherto led us to suppose. What this percentage is I am not prepared to say. The authors already quoted say further on in their articles on pneumonia that the characteristic physical signs of the disease may escape detection from the inflammation being confined to the central situation of the lung. Probably this explanation may account for the lateness of the appearance of the aforementioned signs. Yet, allowing that this explanation is the true one, it is nevertheless just as important for the welfare of the patient to diagnose a central pneumonia early as it is a peripheral one, for the one is as dangerous in its prognosis as the other. If this dullness, bronchial breathing, and bronchophony are not infrequently noticed late—for all authors admit that these signs are occasionally either overlooked or lately discovered—then it becomes necessary to diagnose pneumonia by symptoms instead of by signs. One of the authors before quoted says that if the patient has had a chill, pain in the side, rusty sputa, and high temperature, there is scarcely any room for doubt about the diagnosis, and even in central pneumonia these symptoms are generally present. If there is one symptom which is pathognomonic of the disease it is the pulse-respiration ratio—it is often in the proportion of 2 to 1. I know of no disease in which this ratio is so low.

Change of Type of Pneumonia.

I should say from my own experience that the sthenic or classical type of pneumonia is not so frequently met with as formerly. The type of pneumonia seems to have changed in character. Pneumonia seems often to be of a less local form, spreading often, and the disease ends constantly by lysis rather than by a crisis.

Abdominal Pain in Pneumonia.

In some cases of pneumonia, especially in children, pain in the abdomen, which is referred, has been mistaken for peritonitis—for example, appendicitis—and the abdomen has been opened for this symptom. It is wise always to think of this fact, and when in doubt to examine the chest. On carefully examining the abdomen, although at first tender, this soon passes off, and the whole of the abdomen can be successfully palpated.

Fresh-air Treatment of Acute Respiratory Diseases, with Special Reference to Pneumonia.

The open-air treatment of phthisis is well established, but the treatment of the more acute affections of the lungs, such as pneumonia, bronchitis, asthma, by this method is not

well established. Oxygen is given, but there exists a good deal of doubt as to its efficacy—for the reason, perhaps, that it is too artificial in its manufacture, and, if of use, too intermittently given. Now, the natural atmosphere is always with us, and can be administered in large and constant quantities. May not the higher incidence of pneumonia in winter and spring be due, not so much to the cold weather, as to "the closer confinement of the populace indoors, in the stagnant air of living-rooms from which sunlight is excluded, and which tends to lower vitality and decrease resistance on the one hand, and to favour rapid multiplication and increased virulence of the specific poisons on the other"? (Anders.) Again, we have evidence that pneumonia is more prevalent in overcrowded districts and among the impoverished classes.

It seems to me that in a disease where nearly half of the breathing apparatus is out of gear it is hardly possible to have too much air, containing its full amount of oxygen. I treat these cases with free ventilation, or even on an open verandah exposed fully to the air. My experience is that pneumonic cases do better with this freedom of air rather than, as formerly, with a limited amount. I am not prepared to say that excessively damp air, or strong, cold east winds playing directly on the patient, is decidedly beneficial, but if the air is dry I doubt if the coldness is detrimental.

I should sum up the essential points in the treatment of pneumonia as (1) absolute rest; (2) appropriate feeding and stimulation; (3) sufficient, but light clothing; (4) sunshine, if possible; and (5) abundance of fresh air. The last point is the one most generally neglected, or perhaps forbidden by the patient and friends. I refer particularly to the more acute cases of the respiratory organs, but I have treated a fair number of subacute, and even chronic, cases, such as cases recovering from empyema, bronchiectasis, with or without purulent and offensive expectoration, etc., in open verandahs with the greatest success.

Acute Intestinal Obstruction due to Thrombosis of the Superior Mesenteric Artery.

The cases of the above have been more commonly reported abroad than in England. I have seen two cases. As they are rare and seldom diagnosed, the following points are interesting and useful to remember. The general symptoms and signs are very similar in character, whether the superior or the inferior mesenteric artery is involved. Certain differential points have been given; these do not seem of much value when practically considered, for in both intestinal obstruction is produced.

The first prominent symptom is abdominal pain, closely resembling an ordinary attack of colic. Nausea is frequent and arises fairly early. Vomiting follows, with a gradual change in the character of the vomit. Constipation is the rule, but diarrhoea has been often reported. Tension and tympanitic swelling of the abdomen are late signs indicating the advent of peritonitis. Extreme fetor of the stools, should there be diarrhoea, is of serious omen, and points to gangrene of the bowel having taken place. Profuse intestinal haemorrhage has also been recorded, and when meeting with this sign it is wise to bear in mind that embolus of the mesenteric artery may be the cause.

Prognosis is always most grave, but not absolutely fatal. Of course, this is better if only one branch of the artery is involved rather than several. If the main artery is occluded it is doubtful whether recovery has ever taken place. The greater the arterial obstruction the more severe the symptoms. As regards the source of the embolus, the left heart seems to be the most common one, and after this the abdominal aorta.

Thrombosis of the Superior Mesenteric Vein.

A few cases of this have been reported, giving rise to intestinal obstruction, the artery not being affected. Swelling of the bowel from infarcts occurred, and the tumour has been mistaken for one of malignant nature. Early abdominal section gives the only possible chance of recovery. I have not been able to find any recorded instance of recovery after delayed operation.

The Intestinal Origin of Convulsions.

In convulsions one must often look beyond the brain for the explanation and treatment. A boy, aged 2, was taken

almost suddenly with severe convulsions. I saw him soon after they had begun. They soon became almost continuous, and he appeared in a serious condition. On placing my hand on the abdomen I felt marked peristaltic action of the bowel. The convulsive attack was so tedious and violent in passing off that I gave some chloroform to check it. Some time later the bowels were opened four or five times, after which the convulsions ceased. There are many causes of convulsions in children, and intestinal irritation from undigested or ill-assorted food is among the most common.

Indigestion.

I know of no disease more difficult to diagnose than what is generally called indigestion. The difficulty mainly occurs after 50 years of age. Is the pain over the region of the stomach common indigestion—for example, hyperchlorhydria, or achylia gastrica, etc.—or has the patient a gastric or duodenal ulcer, or the beginning of malignant disease? I am not going to describe the textbook symptoms of the above; they are known to you.

The modern diagnostic methods of the examination by the x rays and bismuth meals, also the last method by fractional test meals, are both probably of more value in diagnosis than the common symptoms, but neither of them, in my opinion, can give a final definite opinion. Of course, where a "lump" can be felt, the consultant who is called in late in the disease may be the first to settle the dispute in question, but one should be anxious to know the trouble before the tumour is recognizable.

I was seeing a case in the country a few months back with a medical friend. We were speaking on the difficulty of diagnosing the cases I am mentioning, when he abruptly turned round and said, "I rarely allow a dyspeptic case to go on more than six months without recommending an abdominal exploration."

In looking back on my past experience I remember now many cases that it would have been better to have operated on, particularly gastric and duodenal ulcers, and malignant disease. Yet one must not forget that it is only comparatively recently that our surgeons have been fully equipped in all operative quickness and skill to deal successfully with these cases. Moynihans do not live in every town; still, they are becoming more common every day. Personally, where I can obtain this necessary surgeon, I feel more and more inclined to recommend this radical treatment of gastric ulcers and malignant disease in the comparatively early stage of stomach symptoms.

Albuminuria.

The ordinary textbook classification of Bright's disease—that is, acute Bright's disease, such as that which follows cold or scarlet fever, chronic tubular nephritis, or smooth kidney, whether large or small, or the granular and contracted kidney—does not by any means cover the cases of albuminuria which we meet with in private practice. I am not referring to those cases of cyclic or functional albuminuria which have often been described and which we know so well, nor to those conditions which follow temporarily specific fevers, nor to those associated with chronic congestive states of chest and abdominal organs. The cases that I am referring to occur in people who are for the most part pretty well; the albumin is almost constantly present, but not as a rule in large quantity.

I have seen a considerable number of albuminuric cases, some with hyaline casts and some without; they defy classification, and it is impossible often to prognose them; they occur at various ages between 30 and 70. Because you find albumin in the urine do not be in a hurry to class the case under one of the classical divisions of the disease. I am convinced that many of the patients live for years without ever having a granular kidney—certainly not a large white one.

I have lately described at the Royal Society of Medicine, and recorded in their *Transactions* of last year, a distinct class of albuminuric cases, which so far as I know have not been written upon before. A large quantity of albumin is present for many years, the quantity often amounting to absolute solidity on boiling. At times the albumin may

entirely disappear. Four of these cases have come under my notice, at ages ranging between 50 and 75. There was no oedema or dropsy. In two there were attacks of insensibility, and at this time the albumin was at its maximum in quantity. Dr. Mackenzie Wallis, of St. Bartholomew's Hospital, kindly examined the urine for me in one of these cases, in which the ratio of albumin to globulin was 2 to 1. The globulin when isolated behaved like serum-globulin, and was quite different from the type met with in functional albuminuria.

Acute Glaucoma simulating a Bilious Attack or an Attack of Erysipelas.

Glaucoma has been mistaken for three diseases—namely, cataract, erysipelas, and a bilious attack. The inflammatory condition of the eyelids and integuments of the face have at times been so severe in acute glaucoma that the case has been diagnosed as one of facial erysipelas; or again, the sickness has been so prominent a symptom that it has to a great extent masked the increased eye tension, so that the latter has been overlooked and gone untreated. Such cases show the importance of teaching the chief practical points in all the specialties. It is not necessary, nor even desirable, that all men should be able to do expert operations, for most cases can wait and be handed on to more skilled fingers. But cases like the above should always be diagnosed early, in order that they be properly placed. Every doctor should be a general practitioner in knowledge, although he need not be so in practice.

The Value of Single Symptoms and Signs.

In the diagnosis of medical and surgical cases one must not forget to put proportionate value on each symptom and sign; it is not the number of these that tell in making a diagnosis, but rather the quality of each one. One sign or symptom may count more in giving our final opinion than five or six others. One often hears men saying that the majority of the symptoms are in favour of such a disease, whereas the minority symptoms may be of much more total value. It happens not unfrequently that one symptom or sign may determine our view to the exclusion of all others. Two examples will suffice: in pneumonia the pulse-respiration ratio ranks probably highest of all the symptoms, and is almost pathognomonic of the disease. In acute appendicitis the pulse and respiration should rarely if ever be trusted, whereas rigidity ranks very high and may be the only sign.

The Soporific Action of Mercury.

I am not aware that the soporific action of mercury in the class of case about to be described is at all generally known. The cases in which I have found blue pill—for this is the form of mercury I am referring to—give such good soporific effects are rather difficult to describe, and must be given in a more or less general way. Many men would call them cases of biliousness, and for want of a better term I am contented to use it provisionally. The patients, who are usually over 40, complain of lassitude, loss of appetite, a general fullness of the abdomen, pains in the shoulder-joints, a want of clearness of thought, more or less dull pain in the head, not confined to one particular spot, irritability of the skin, and, above all, of sleeplessness at night. The tongue is generally of a whitish-brown colour, there is a nasty taste in the mouth, and the eyes are rather "thick." There may be many more symptoms and signs than the above, or few of them may be present, but when the symptom of sleeplessness is prominent, then the soporific action of blue pill followed by saline draughts is peculiarly brought out.

The symptoms I have detailed are principally found under the heading of "bilious dyspepsia," but there is this important clinical difference: whereas sex, sickness of food, and want of exercise play leading parts in producing this particular form of dyspepsia, the cases that I have in mind are found as often—if not more often—in women as in men, and where the plainest diet and fair amount of exercise have been taken.

There is little doubt that sea air has something to do with

this state of health; people who have come down to the sea-side after a long residence inland frequently develop, after a few days, all the symptoms described. I do not associate these cases with those which are commonly called "lithaemia," or the substitution of uric acid for urea as the final product of disintegration of albuminous substances within the body; in this last condition one finds the more remote symptoms of gout.

What is the exact action of mercury which brings about the happy result? I do not know, nor am I anxious to propose theories. Murchison supposed that mercury possessed a double action, for he says, whether or not the secretion of the bile was increased, more bile was certainly passed when the drug was being taken, and an eliminating action was brought about, so that less of the bile constituents were absorbed from the intestine than usually. Again, he supposed the albumin to be in some way more thoroughly disintegrated. In some such way the brain is "cleared." It is important for us to know empirically the use of a drug which will enable us to give a patient a good night's rest, whilst at the same time we are treating the origin of the trouble and apparently not giving ordinary soporific drugs.

The Danger of putting Old People to Bed.

Probably I shall be running a tilt against someone's opinion when I say that I believe that many old people are sent to bed too early, and are kept too long in bed when they are convalescing. Of course, there are many obvious exceptions which will at once occur to you, and which I need not take up your time in mentioning.

I believe that we should be chary in advising old people to take to their beds when slightly ill. Some few years ago I was attending an old man of 80 with a slight attack of bronchitis, the like of which he had often suffered from before. A consultation was suggested, and the consultant called in advised my patient to go to bed. I remonstrated, but gave way to what I thought then was wiser advice than my own. The patient kept his bed for a week and then died. It may have been a case of *post hoc* and not *propter hoc*; still, my experience has since led me to believe that this man would have had a better chance of recovery if he had remained up during the daytime.

We must remember that the will power of old people is comparatively weak, and that bed to them is comfortable; then, when once in bed, after a few days the heart and muscular system lose tone. The effort to overcome the above is difficult, and sometimes impossible to obtain again. It often requires a good deal of courage to keep these old people from taking to their beds, for the patient often takes kindly to bed himself and the friends think you unkind in advising less rest.

My own belief, then, is that it is wise to keep old people about and with moderate exercise as long as possible.

Final Remarks.

I have finished.

I have often wondered, and at the same time regretted, why men who have been in practice many years do not record their experiences. Men who have been in general practice in the past have done great work. We think of Jenner, etc., and in modern times of Mackenzie.

Some years ago there was much more local record of cases made than there is to-day. In my own experience as Secretary of the East Kent District of the South-Eastern Branch of our Association, for six years we had regularly four meetings a year, with an average of four papers at each session, and with an average of twenty attendances. Things and times are changed. All the papers were written by our own members. Most of us who have been in practice for some years, whether hospital, private, or both, must have a vast experience well worth noting down. I have often said that young men write books, when they have little practice; old men, who know something, have little or no time. Personally I have seen in practice most of the rare diseases in medicine, many of which I have recorded.

We who live in villages and comparatively small towns see diseases often in their true perspective—the beginning, the middle, and the end of them.

HERPES ZOSTER OPHTHALMICUS.

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THE eye has aptly been described as an elegant diminishing mirror of diseases of the body. Indeed, our ophthalmic experience of herpes zoster reflects so diffusely upon epidemiology, neurology, and dermatology that we can but select six arbitrary headings—etiology, pain, efflorescence, keratitis, complications, and treatment.

ETIOLOGY.

"In full fair tide let information flow—

That evil is half cured whose cause we know."

Churchill: *Gotham*, Book 2, 652.

In our infirmary practice the incidence of herpes zoster is approximately 1 in 10,000, but in many clinics it is rarer—for example, Colonel Elliot estimated its relative incidence at Madras at 1 in 25,000.

In twenty private cases the average age at the time of attack was 55. We see the disease in children occasionally, but note that as a rule only elderly patients experience persistent pain, extensive scarring, or severe corneal ulceration. We are indebted to Dr. Henry Head for a letter confirming our inference that ophthalmic zona is more prevalent in early life than ophthalmic statistics denote.

"Herpes zoster in children," he writes, "is almost a negligible disease. Were it not that the mothers are frightened of the rash we should see very few cases in young persons. The elasticity of the ganglia and surrounding parts probably prevents the occurrence of severe forms of pain. Notoriously, herpes zoster wherever it occurs is much more severe in old people than in young. This is particularly the case when the rash lies over the forehead."

Some authors report a preponderance of male patients, and state that the right side is more often affected than the left; in our own series the proportions were equal in both respects. The cases were entirely sporadic. In one instance a man and his wife were affected, but fourteen years intervened between the two attacks. Most of those affected were in good health and were engaged in active mental or physical pursuits prior to some temporary fatigue or minor indisposition, upon which herpes supervened.

In a case which followed carbonic oxide poisoning Sattler first described infiltration, destruction, and degeneration in the Gasserian ganglion. Poulard distinguishes three varieties of trigeminal herpes according to the position of the causative lesion: (1) a neuritic form, affecting the peripheral branches of the ophthalmic division; (2) a rhizomeric form, implicating the Gasserian ganglion; and (3) a metameric form, in which the lesion is in the pontino-medullary nucleus of the fifth nerve. In this nucleus, according to Bing, the frontal region is represented most distally, the temples and eyelids in an intermediate position, and the nose and cheeks highest up. In one or two of our cases anomalous eruptions occurred, for example, on the buccal mucosa, in addition to the eruption of typical rhizomeric distribution.

Netter states that herpetiform eruptions appear in at least 1 per cent. of cases of encephalitis lethargica, and cites a case reported by Medea of Milan, in which encephalitis was accompanied by supra-orbital herpes, followed by paraesthesia of the affected area. Numerous instances of chicken-pox arising in remote farms and isolated villages within twenty-one days of a case of herpes zoster have been recorded.¹⁷ Again, Head and Campbell point out that herpes zoster may justly be described, both on anatomical and pathological grounds, as acute posterior poliomyelitis. Probably the virus of shingles, widespread in an attenuated form, is liable to enhanced virulence, when epidemics arise, and is sometimes inconstant in its affinity for the small bipolar ganglion cells, irritation of which results in the