not tolerate raw liver, but has made a very rapid recovery under treatment by one of the more recent liver extracts.

I should like to discuss, if time would permit, whether the pernicious anaemia was in any way due to the serious strain on the young man’s constitution three years previously, whether the toxins of obstructed intestine combined with the repeated anaesthetics could possibly damage the patient’s liver so that its blood-forming function might be inhibited, or whether the short-circuit between the large bowel and the upper end of the small bowel could be in any way responsible for the late complication. I must be content to suggest these for your own consideration.

It would be unfair to give a description of this case without saying that recent discoveries would probably have rendered the treatment more easy and might have avoided the enterostomies. The administration of antigas-gangrene serum has been shown to have a wonderful effect in some of these cases of ileus, and equally good results have followed the treatment of some cases with human or ox-bile administered per rectum.

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AMENITY IN RELATION TO CEREBRAL DISEASE AND ABNORMALITY.

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(Continued from p. 13.)

There are a few other cerebral conditions which may give rise to residual cortical damage after the active mischief has subsided, and may thus be associated with amenity. In the first place, I would say a few words about trauma, because many cases will be brought to you in which this is the alleged cause. You will probably be told that the trouble in a large proportion of those that are brought to you dated from, or was attributed to, the child falling on its head, or being dropped by a nurse. Excluding birth trauma and perhaps injuries in the first weeks of life, I believe that trauma must be so rare a cause of amenity that you may for practical purposes exclude it. The more opportunity one has of investigating these cases, the more one finds that the symptoms can be much more easily explained in other ways, and that an accurate history of the child’s development—milestones, &c.—show that the amenity preceded the trauma. Moreover, the cases of cerebral trauma which I have seen, with obvious concussion or evidence of fractured base, have scarcely ever been followed by any permanent amenity. As a point of practical policy, you will often do well to have an X-ray examination of the skull in a case in which an injury is supposed to have occurred. Personally, I believe that a cranial injury in a child which is not fatal and does not produce physical signs almost always passes on to complete recovery when the initial irritation has subsided, and that in the rare cases where the cortex is involved in blood-clot you may get fits without amenity, but scarcely ever amenity without fits.

An alleged cause which I think you may dismiss completely is rickets. I mention it chiefly because a publication appeared recently on the Continent giving an elaborate description of so-called rachitic dementia, and I have heard it suggested as a cause from time to time. Rickets is very commonly found in feeble-minded children, because many of them are the offspring of psychopathic parents, and are consequently exposed to environmental influences which favour the development of rickets. But I do not believe that there is a grain of positive evidence in support of the idea that rickets is a causative factor in amenity.

A much more difficult question is provided by syphilis. There is no doubt whatever
that this does play a part in the aetiology of mental defect, but it is not by any means easy to estimate its importance. Numerous investigations have been made into the incidence of syphilis in aments, but the results obtained have been so conflicting that little can be deduced from them. Even if one form an idea of the frequency with which the two are found together, one cannot go on to assume that the syphilitic virus is always the cause of the amentia. In some cases which I have seen the somatic manifestations and general condition improved enormously on treatment, whereas the amentia was unaffected; in these patients I think that primary amentia and congenital syphilis were accidentally combined. On the whole I do not think that syphilis does play a large part in the aetiology of amentia. But the cases which are due to it are an important, if not a large, group, because the majority of them yield to treatment. There are various ways in which syphilis may bring about amentia, and one must distinguish between several different groups of syphilitic aments. Firstly, I would refer to the view propounded by Dr. Treggold, that syphilis may cause an actual impairment of the germ cell which results in a primary amentia indistinguishable from other varieties. I think that the evidence is in favour of this view, but one cannot determine which individual cases it applies to, and they do not react to treatment, so this class has less practical significance for us than the others. I look upon the syphilitic aments which I see in practice as falling into two groups: (1) In which the amentia is merely a symptom of a constitutional infection; and (2) in which there is a condition of true parenchymatous neuro-syphilis. The first group is rather an indefinite one; it includes a fair percentage of the children whom one sees who are affected with congenital syphilis, and the amentia is usually slight, often on the border-line of mere backwardness. Syphilitic amentia of this type merely means that just as the bodily development is often stunted and delayed in these children, so is the mental development, and if the cause is not treated the intelligence may become sufficiently impaired as to warrant the diagnosis of amentia. If these children receive adequate anti-syphilitic treatment, the mental faculties usually improve as rapidly as the somatic manifestations, so it is extremely important that these patients should be recognized, and should be treated medically and not classified as hopeless aments. The other class I called parenchymatous neuro-syphilis. I mean by these what you have seen described as juvenile tabs and G.P.I. I do not usually use these words, because in practice I am seldom able to tell which of them to use; in congenital syphilis they do not seem to be nicely separated into one or the other, and an accurate estimation of impairment of afferent neurones in juvenile aments is beyond my powers of endurance. In these children there is a slow intrinsic degeneration of neurones, usually both pyramidal and afferent, with some disturbance of intellectual functions. But in my experience the intellectual disturbance has seldom been an early sign; when it is present there have usually been well-marked physical signs, and in the cases with only slight and early physical signs it has generally been absent. It often combines the features of an amentia and a psychosis; inability to learn, with bursts of uncontrollable temper and perhaps hallucinations. The prognosis in well-marked cases is extremely bad; they go down-hill a little more slowly under treatment than without it, but that is the most I can say about my own results.

A little time ago I was altogether pessimistic about the treatment of congenital neuro-syphilis, but in later years I have had several cases in which the disease was diagnosed in a very early stage, and in whom the result has been so good that I have come to a much more hopeful view. The really important thing is to diagnose the case at an early stage of disease. By this I do not
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mean at an early age; some of them have been decidedly older than the usual age for the disease, but it often happens that the parenchymatous degeneration does not set in until after years of latency. You can only diagnose them in the stage when the physical signs are slight, by a careful examination of the nervous system, and by examination of the cerebro-spinal fluid of those in whom the signs are indefinite. I can give you one hint which may enable you to catch some of them; the majority of my early cases were discovered as the result of a somewhat minute examination of the nervous system of a large number of children who suffered from disturbances of micturition. I think that enuresis or incontinence of some kind is the commonest early symptom, and well worth bearing in mind. The commonest physical signs are unequal, fixed, or Argyll Robertson pupils, and sluggish or unequal tendon-jerks. The ordinary stigmata of congenital syphilis have been entirely absent in every case that I have seen; I rather think that this has something to do with the fact that they often are not diagnosed until the disease has progressed too far. At the early stage of the disease in which they are still amenable to treatment the signs may be very indefinite, and the only way to be certain is to examine the cerebro-spinal fluid of suspicious cases. If parenchymatous degeneration is taking place, there will always be some evidence of meningeal reaction, as shown by a decided increase in the cell count, 40 to 60 being the sort of number present. There will in the great majority of cases be a positive W.R. and an increase of globulin. Lange's colloidal gold curve is of considerable help in these cases, and usually is roughly of the paretic type.

A disease which may leave a residual ammenity is meningitis, both of the acute epidemic form and the sporadic (posterior basic) varieties. The mental impairment is on the whole the more serious the younger the patient is at the time of infection, and so the posterior basic form produces the greatest amount of ammenity. It may be of any grade, and is often complicated by the results of deprivation, special senses such as hearing and vision being affected. But the epidemic form in children may leave some degree of impairment, usually slight, without any special sense defect. If you are able to recognize a case as being of this origin, the point to remember is that it is residual and not progressive, so that it is well worth while making efforts at re-education, as many of them will respond fairly well to them, though complete recovery is unlikely.

Perhaps the most difficult disease of the brain in its relation to ammenity is encephalitis. In the first place, we only know a little about its pathology, and I do not think that opinion is quite unanimous as to whether the cerebral mischief which follows encephalitis should be regarded as residual or as slowly progressive. Probably it varies; in some cases the inflammatory process dies out, and in others it smoulders slowly on. From clinical evidence I think that the latter is the common event, and I take an unfavourable view of the prognosis if evidence of mental retardation is present. I read about cases that subsequently make remarkable progress, but I hardly ever see them. But, considering that encephalitis is so common a disease, uncomplicated ammenity in the ordinary sense of the word is a comparatively rare sequela. We may leave out of consideration a child who is definitely Parkinsonian; the diagnosis is obvious and the varying degree of mental arrest which accompanies it can hardly be separated from the general inability to do anything effectively. In cases which are not Parkinsonian it is common to meet with disturbances of behaviour; one form of this is an obstinate refusal to learn; this in its turn produces a child who has fallen a long way behind his contemporaries. But a true essential defect of intelligence is in my experience rather rare, so rare, in fact, that I have not really felt sure if the few cases that I have seen were not aggravated rather than caused by the illness. The M.D.
Act of 1927 has now included cases of this kind in its scope, so that they may come to be referred to as aments, but I personally doubt whether anything is gained by educating them among the primary aments, and as there is no hereditary factor in the disease there is not the same motive for segregating them.

There are one or two progressive forms of cerebral and spinal degeneration which tend to be associated with some degree of mental enfeeblement. You may be consulted on this point if you are treating one of them, because the parents want to know to what extent it is worth while pressing their education, and whether their mental powers are likely to improve or not. Among these I would mention the abiotrophic degenerations, in which the neurones appear to function normally during the first few years, but begin to deteriorate after a variable interval. When the degeneration affects the anterior horns, the symptom-complex is called progressive neural muscular atrophy, the most typical form being the peroneal atrophy of Charcot-Marie-Tooth. When it affects the posterior and lateral columns it is called Friedreich's disease; any kind of transition form between them may be met with. A notable feature of these abiotrophies is their tendency to run in families. Mental impairment is by no means a constant feature, but in the majority of the ones that I have seen there has been lowering of intelligence somewhere near the border-line of mental defect, and some of them have been definitely feeble-minded. This may sound a small point, when one is dealing with so disabling a disease, but it raises important problems for the medical adviser, as the parents will want to know whether it is worth pressing the child to learn, or providing special education, as the bodily disability renders them unfit for ordinary school life. In general, you may say that when any degree of feeble-mindedness is present it tends to be very slowly progressive, and that it is not worth while attempting to do much more than to keep these children content.

The same sort of questions may arise in the children who suffer from any of the various degenerations of the corpus striatum. I do not want to go into them in detail; their principal characteristics are muscular rigidity, tremor, and involuntary movements, and in them the signs of a pyramidal lesion are absent. This group includes Wilson's disease, "pseudo-sclerosis," and a number of other varieties. The typical mental state is one of undue emotionalism, but some diminution of intelligence may also be present. The disease runs a more rapid course than the abiotrophies, and it is not worth while putting the patient to any efforts.

Of the forms of amentia associated with a gross cerebral abnormality, one that you may meet with fairly frequently is micro-cephaly. These children will, I think, be brought to you mainly for your opinion on prognosis, and on this you may be quite definite in your own mind. It will also, in most cases, be best for the parents if you state it frankly. The degree of amentia is usually severe, in most cases amounting to idiocy, rarely falling short of imbecility. They tend to be of the quiet, apathetic type, rather than the mischievous type of ament, and they do not respond to any educative measures. Clinically, the chief features of interest are found in the skull. Not only are its dimensions greatly reduced, but there is a premature closure of fontanelles and ossification of sutures. I have X-rays of several of these skulls taken in the first few months, in which I can see no evidence of the existence of any sutures or fontanelle. It was at one time supposed that the premature closure of the sutures was the primary condition, and that failure of the brain to reach its full development was due to its having insufficient space. This view has now fallen into discredit, and it is said that the primary defect consists of a failure of growth in the brain, and that the sutures
osslify because there is not enough pressure to keep them apart. But I know of no really convincing evidence on the origin of the condition.

The diagnosis in a well-marked case will be obvious, and you will not miss many of them if you keep to the excellent rule of measuring the circumference of infants' skulls. No actual measurement can be given which will place a child in this category, though in adults a measurement of below 17 in. has been taken as a standard. But anything below 10 in. in the newborn, or 12 in. at 6 months, should make you suspicious. If ever you are doubtful, as you may well be when the measurement approximates to the normal, your best course is to X-ray the skull and look for evidence of premature ossification of sutures.

The microcephalic cranium has a peculiarity of shape as well as of size. There is a deficiency of frontal and of occipital development, so that the forehead slopes backwards from the nose, and the back of the head is straight rather than curved. You will find great stress laid on this in descriptions of adult cases. I have no experience of adults, and mainly see them in infancy; I think that they probably develop their characteristic shape to a large extent during life, as it is quite often only present to a slight degree at birth. At that age it is not nearly so important a diagnostic point as the X-ray appearance.

There is one other form of amentia associated with cerebral disease which is worth mentioning, _tuberous sclerosis_. This is not a common condition, but it is one which is likely to be brought to the general practitioner for one or other of its symptoms. Essentially it is a form of amentia in which neuroglial nodules, sometimes of considerable size, grow in the cerebral cortex. Associated with this is a condition of acne sebaceum on the skin. These children nearly always suffer from fits, which come on in early childhood. Later on, a fairly severe degree of amentia supervenes. If acne sebaceum is not present, the condition will probably be indistinguishable from idiopathic epilepsy, but if you find acne sebaceum in a child that is brought to you for fits, or if it is brought to you for the skin complaint, you should bear this disease in mind. The prognosis is of course very much worse than in simple epilepsy, and sedatives have much less effect in controlling the fits.

Finally, I would like to say a few words about the relation of hyperkinesis—any form of superfluous movement—to mental abnormality. A good many of the subnormal children that I see are sent up because they are fidgety in some way or other, and as often as not they have been diagnosed as "chorea." Now, if by chorea you mean Sydenham's chorea—the ordinary rheumatic form, which ends in recovery—I would advise you to be very chary of diagnosing it in a child whom you find to be of subnormal intelligence, because I think that in almost every case you will be wrong. And in that case you will treat the child wrong, because you will give instructions for the child to be kept at rest, isolated, unoccupied, for some weeks; the correct treatment for Sydenham's chorea, but the exact opposite to that of any other form of hyperkinesis. The result of this error is often the cause of these cases being brought for advice.

Hyperkinesis is a very common symptom in mentally subnormal children. Usually it is not true choreiform movement, but a sort of generalized movement more akin to habit spasm, in which grimacing and "picking things" occur. When it is choreiform, there is usually a cerebral lesion, though it may be a very slight one; there may be residual birth trauma or some progressive cerebral condition which has affected intelligence. Another possibility to bear in mind is encephalitis, of which chorea is a common and usually a transitory symptom. But I am sure that you will find it worth while to remember that a child whose intelligence is
subnormal, and exhibits some form of hyperkinesis, is likely to be suffering from some more serious and less transitory condition than Sydenham's chorea, and that your prognosis must be modified accordingly.

CORRESPONDENCE.


Sir,—As one who arrived in London last year from Australia anxious to do some post-graduate work, I would like to pay a tribute to the excellent work which the Fellowship of Medicine is doing. I may say, at once, that it is a boon to the stranger reaching London and not knowing how to start his campaign.

I noticed a correspondence recently in one of the medical journals in which it was suggested that the facilities for post-graduate study are better on the Continent than in London. I find it hard to believe that in a foreign city where the tremendous disadvantage of a strange tongue is prominent the conditions for advantageous study excel those of London.

Whatever department of medical study is required surely London can fill the bill. Should the practitioner require to refurbish his knowledge of the nervous system, The National Hospital, Queen Square, and the West End Hospital for Nervous Diseases conduct most attractive and instructive classes. Again, no one who wishes to keep his mind au courant with recent advances can afford to miss the Cardiology Course at the Heart Hospital.

The special branches, surgery, skin, &c., all have departments equipped for teaching. And here I may say that my experience has been that everyone concerned seems only too anxious to help the post-graduate and to impart knowledge.

The main object of my letter, however, is to draw attention to the assistance given by the Fellowship of Medicine. Practitioners will find that the staff of the office in Wimpole Street will leave no stone unturned in their anxiety to help. I can only speak from personal experience, but that experience has been sufficient to make me thankful that I did my post-graduate work in London and not elsewhere.

Yours faithfully,

Waratah Hotel, J. R. Tobin.
Palace Gate, W.8.
September 28, 1928.

POST-GRADUATE NEWS.

As announced in the October issue of this Journal, the Fellowship of Medicine has organized a series of lectures for the Autumn Session. The lectures are delivered in the Lecture Hall of the Medical Society of London, 11, Chandos Street, Cavendish Square, W.1, on Mondays at 5 o'clock. Those arranged for November are as follows:—

Nov. 5th—Mr. Aleck Bourne, "When is the Retroverted Uterus a Cause of Symptoms?"

" 12th—Dr. H. C. Semon, "Some Basic Remedies in Diseases of the Skin."

" 19th—Mr. L. C. Rivett, "The Signs and Symptoms of the Common Disorders of the Menopause."

" 26th—Dr. Donald Paterson, "Some Problems in Infant Feeding."

The following clinical demonstrations have also been arranged by the Fellowship of Medicine:—

In Medicine.

Nov. 7th—2 p.m. Charing Cross Hospital, Dr. Everard Williams (Gyn.).

" 8th—1.30 p.m. St. Bartholomew's Hospital, Sir Thomas Horder, Bt. (Ward Round).
Amentia in Relation to Cerebral Disease and Abnormality

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