is present it tends to affect the anterior cornua and the central canal. The case was looked on as one which probably was a bruising of the cord from over-extension of the cervical vertebræ, accompanied by hæmatomyelia. A crush at this region from displaced vertebræ would, in all likelihood, have resulted in more general spinal involvement, such as paralysis of the nerves of lower limbs.

Then, again, the lesion was unequal on the two sides, as the paralysis of the right arm was more severe than the other, while it was clear that the lesion on the right side was likewise destructive, as atrophic paralysis is now marked in the right hand and arm. It is possible that the last two cervical and the first dorsal

nerves may have had their roots specially injured, though both sides were here implicated at the same level, though not to same extent. The posture, as in the photographs, is typical of cord lesion about this region.

Trephining was not resorted to, as the diagnosis was that of over-stretching of the cord with consequent bruising and hæmatomyelia. There was no reason for trephining—no bone to elevate—and the blood was probably very diffuse and involving the central canal. In the cervical region, especially in the vicinity of the fifth and sixth cervical centres, one would not be disposed to expose the cord unless for very obvious reasons, especially when the intercostals are paralysed, as slight ascending myelitis might paralyse the phrenic and lead to death. Regarding the diagnosis, a difficulty presents itself in explaining why the lower limbs escape from motor paralysis when the intercostals are paralysed. If one accepts the view that the anterior or direct tracts are chiefly related to the innervation of the arms, then an explanation may be forthcoming. From sections made at various levels of the cord, it is seen that the anterior pyramidal tracts lessen from above downwards, so that under ordinary circumstances, when the bulk of these tracts are about their usual size, they disappear near the middle of the dorsal region; when they are small in the upper cervical region, they may disappear about the middle or more probably about the end of the cervical enlargement; and when very bulky in the upper cervical, they may continue down to the lumbar enlargement. The innervation of the arm is located almost exclusively in the opposite hemisphere of the brain. These so-called direct tracts decussate, not in the medulla, but in the cord itself, probably passing through the anterior commissure to the grey matter on the opposite side. On the other hand, the lateral tracts, however small they may be in the upper part of the cervical, always continue down to the lumbar enlargement. Were we accepting this probable explanation, believing that the anterior tracts (which are crossed in the cord) contribute mainly to the innervation of the arms, then we might further ask whether the intercostals are not also innervated from the anterior tracts? Were this answered affirmatively, the peculiarity noticed here (and this case is by no means unique in respect of the intercostals being implicated without involvement of the lower limbs, the lateral tracts not being involved in the lesion) would be ex-

plained. This theory gains anatomical colouring from the fact that the direct tracts generally continue down the cord to the middle of the dorsal region, where the anterior tracts would terminate did they supply the principal respiratory intercostals.

THE WARNINGS OF GENERAL PARALYSIS OF THE INSANE.¹

By GEORGE H. SAVAGE, M.D.LOND., F.R.C.P.,

Lecturer on Mental Diseases at Guy's Hospital; late Senior Physician and Superintendent Bethlem Royal Hospital.

GENTLEMEN,—I feel a great responsibility to-night in bringing before the meeting a subject so hackneyed as general paralysis, and yet if experience can justify my writing a paper, I have that plea at least. The gravity of the disease and its intractability make it intensely interesting, and as years pass on it seems to appeal to us more personally as one and another of our friends or patients fall out of rank, victims to this malady. I shall not go into the already well-described symptoms of the disease, but I must premise by saying that it seems to me to be the disease of civilisation, and that the ratio of general paralysis is nearly the ratio of the high pressure life of cities. It is rare in the wilds and highlands of Great Britain and Ireland, and was rare in the negro of the Southern States, but the Highlander, the Welshman, and the Irishman die of the disease in cities, and with freedom the slave has acquired general paralysis.

It is further necessary to say that for the purposes of this paper I shall treat general paralysis as one disease, and one diseased process, though the symptoms may be manifold. I am more and more inclined to look at it as a degeneration, a premature decay, and as frequently having a local origin. I am in the habit of saying that decay in a neglected house may fall on different lines according to the original structure of the house and to the surrounding causes of destruction; in the end, the four enclosing walls alone may remain to mark the site of former human life, with its passions and its interests. So with the nervous edifice, the containing walls of organic life may for a time alone remain as witness of the past; yet we must remember that there is a considerable difference between the waste and decay produced by age and that resulting from the changes of general paralysis, and this will be noticed as we proceed to trace the earliest signs of the disorder.

It is always dangerous to be free in the use of metaphors, but I feel that I must use similes to make my meaning plain; already I have spoken of ruin and of decay, and I have said that this may have a local origin. It seems to me that just as a pear may remain long ripe and not decay, yet a bruise or a slight superficial injury will start the process of decay, so the overwrought brain may but need a local injury such as a blow or a local change in nutrition due to syphilitic or other vascular changes to set up the necessary process. "And so, from hour to hour we ripe and ripe, and then from hour to hour we rot and rot," and in considering the warnings of general paralysis, I think one must not forget the conditions under which the disease is most commonly met with. The botanist knows that he is likely to find his British orchids chiefly on chalky downs, and the physician expects to meet his general paralysis in the middle-aged men of good physique, and though certainly the orchid may be transplanted and live under other conditions, these are not its habitat, and so general paralysis may arise in other than its common surroundings. It is necessary to point out rather more in detail as we proceed the predisposing causes of general paralysis.

It must be fully recognised that extreme difficulty is often found in distinguishing between causes and early symptoms, for in many cases what may be causes of general paralysis also are often signs of the disease. Possibly drink, extravagance, restlessness, and sexual excess alone or combined may start the degeneration, but it is certain that one and all of these may be early signs of loss of the highest self-control. I shall, as far as I can, distinguish between these causes. And now for my field of work.

For several years while at Bethlem Royal Hospital, as soon as the friends of the patients fully recognised the hopelessness of the state of their general paralytic friends, I asked them to fill in a printed sheet, such as is before you, and with very little difficulty I obtained nearly a hundred such; in addition, I have put

¹ A paper read before the Harveian Society of London.

together the results of my experience in consulting practice, and by this means I have a considerable number of facts which I believe are trustworthy.

Authors such as Mickle, Voisin, Mendel, Clouston, and others give an account of the prodromal stages of general paralysis, but I have thought it best rather to place before you my personal experience than to give you a dry digest of the opinions of authors in general; there may be less breadth but more vitality in my method.

General paralysis then is, in my opinion, a degeneration rather than a specific disease, which is most commonly met with in middle-aged married men, inhabitants of cities, flesh eaters, and drinkers of alcohol. It is not common among the congenitally deficient or among epileptics. It is a frequent follower of constitutional syphilis, especially if this disease has affected the higher nervous organs or their envelopes, and it is not uncommonly related to head injury or to causes of nerve-tissue disease, such as those produced by lead.

I fear I cannot promise to make clear to you any means by which you will certainly detect general paralysis in its earliest stage, but I hope to provide the means which will enable you to detect the disease earlier than you would do so otherwise by piecing together small factors of evidence which apart might be neglected. As one becomes more and more experienced in the varieties of this disorder, the more general becomes the tendency to find general paralysis in all suitable cases, and my present experience is that whereas when inexperienced I missed general paralysis when it did exist, now I run the risk of finding it where it does not. I shall do my best to aid you to avoid both tendencies to err.

It is quite beyond the scope of a short paper to discuss all the possible warnings, and I shall therefore discuss in detail a few of these. There are two special forms of onset, which I would describe as the gradual and the sudden. In the former there is a steady and more or less regularly progressive degradation of mind and body, so that the highest faculties show the first signs of change and the special attainments fail before the more general; in these the finer social and the finer muscular adaptations fail and the changes and weaknesses in mind and body gradually show themselves. In the latter, or sudden onset, there is nothing to warn till a sudden storm arises, which may assume the character of a convulsive seizure, an attack of emotional excitement, or one of mania. Probably in both there were earlier changes going on but they were hidden, and it is, as it were, an accident of temperament whether a convulsion or a mental disorder makes manifest the change.

To start with the motor side, in many cases one meets with an account of early fatigue, so that a man who could walk 20 miles with ease finds himself done up at the end of five, or a lawn tennis player complains of his want of condition at the end of the first set. I believe that this fatigue is a really important symptom and is associated with indecision, doubt, a tendency to look on the dark side of things, and even hypochondriacal weakness. In such cases a patient will be emotional and complain that he feels he is getting very old. This feeling of fatigue may precede the common symptoms of general paralysis by a year or more, and may be replaced for a time by a morbid buoyancy. This symptom is only really valuable when found associated with predisposing conditions in which general paralysis is common and when one or more physical symptoms, such as inequality of pupils or loss of power of expression by speech or writing, can be detected.

This feeling of fatigue may be related to muscular tremor or to muscular paresis, and as I shall have to refer to the former under another head, I shall only here state that ataxic symptoms may precede general paralysis by an almost indefinite period.

Locomotor ataxy may be associated with other forms of insanity, and may, in no great degree, affect the duration of life, but in some other cases ataxy appears and is not complicated by mental disorder for several years, when other signs of nervous degeneration appear and general paralysis becomes manifest. It is to be carefully noted that ataxy may be the first symptom of general paralysis, or ataxy may be a symptom of the disease occurring at any period during its progress.

I have known ataxic symptoms to have been fully developed for several years before there was any suspicion of general paralysis. In these cases I have always found there was a history of syphilis. If the ataxy is part of general paralysis there will generally be muscular defect of hands and tongue, out of relation to the progress of the ataxy, and the symptoms will either be those

of exaltation or of hypochondriacal melancholia; whereas, if the insanity be that of ordinary ataxy, it will be of the suspicious and "persecuted" type, the patient believing himself to be a martyr or a victim.

Probably one of the most striking, and by no means uncommon, warning symptoms of general paralysis is temporary aphasia. Dr. Bristowe has elsewhere discussed cases in which aphasia suddenly comes on and as suddenly passes off; the causes are not known, and have been variously explained. I must guard myself by saying that this temporary aphasia is not necessarily followed by general paralysis, but the cases to which I refer generally have a history that the patient has, without any real cause, or after slight excitement or fatigue, become aphasic. He may or may not have been faint at the same time—rest or stimulants have soon restored him—but in most cases it has been noticed that from that time there has been some speech defect; that the lips have been tremulous, or the expression faulty. It is common for these aphasic attacks to recur at very irregular intervals, and after several recurrences—it may be at intervals of a year or more—some other signs of disorder occur; but, in nearly all these cases, disorders of speech and writing are early and clearly evident. The centre affected earliest is the centre most deeply involved. I have known such aphasic attacks occur nine years before general paralysis was manifest, and in many cases they were two and three years in advance of any serious mental disorder. Aphasia is usually marked before change in the handwriting; but, in a few cases, there is great difficulty in writing, a dropping or isolation of letters, or fatigue in writing, long before general paralysis is suspected.

Nearly related to aphasia is this change in handwriting, and I would specially call attention to the fact that some patients give up writing, or alter their mode of holding the pen, for a year or more before signs of general paralysis are declared.

Facial expression is very early affected, and it is a common experience to hear friends say that the patient had appeared to have developed a "fat face." The wiping out of the lines of the face give the aspect of fatness, and, at the same time, the skin may become greasy, or there may be unilateral sweating.

Ptoxis and external strabismus are rare as symptoms of general paralysis, but are very common as early symptoms of a diseased process, which ends in general paralysis. I have met dozens of patients with a history of syphilis, followed by treatment and recovery for years, succeeded by ill-health or worry, during which cranial nerve lesion has developed; this, in its turn, being cured by treatment, only to be followed by general paralysis. This group of cases is of very marked interest, and is one which, I believe, is often lost sight of by ophthalmic surgeons.

I will only emphasise my experience by saying that if, after a history of syphilitic cranial nerve lesion, there are any signs of nervous instability, there is real reason to fear that general paralysis may be the result. Any local intracranial nerve lesion, especially such as depends on syphilis, may originate general paralytic degeneration; and it may be well here to say that to this group belong many of the cases of traumatic general paralysis. I have met with instances in which a serious head injury has been followed by local paralysis, which has passed off only to be followed by a steady mental and physical degradation, which terminated as ordinary general paralysis. Whether surgeons will dare to interfere in these cases I cannot say, and I myself should strongly doubt the utility of surgical interference, for though general paralysis follows in some cases of syphilitic lesions and injuries, yet I have not seen it follow ordinary brain tumours.

Allied to aphasia are some slight and partial losses of power or of sensation. Such attacks are usually related to slight "fainting fits." A man, while at a meal, suddenly lets his knife fall from his hand, and feels giddy; he quickly recovers himself, and may make some excuse for his awkwardness, and may really have never lost consciousness. Similar attacks recur, and may induce him to seek advice, and yet his real danger may not be recognised by skilled physicians, unless they are keenly expectant of general paralysis.

I have met with a few cases in which temporary loss of sight or of feeling has been complained of. These states may fairly be compared to the attacks of *petit mal*, and lead to the consideration of fits as warnings of general paralysis.

It is remarkable that the epileptic insane provide very few cases of general paralysis, but that general paralysis follows epileptiform fits in many cases. So much is this my experience, that when I hear of the onset of fits of an epileptic type in a middle-

aged man, I at once look for other signs of degeneration. The occurrence of such fits in a patient who has had syphilis renders the probability still greater, but I must warn you against giving the diagnosis without careful consideration, for as you all know syphilis may cause local lesions leading to hemiplegia, from which general paralysis does not necessarily develop; but it is necessary to observe that if fits occur in an otherwise healthy middle-aged man at irregular intervals, and if with each fit marked mental changes, such as loss of memory, occur, and if expression is in any way permanently affected, general paralysis is all but certain. Fits of this kind may precede the ordinary symptoms of general paralysis by several years.

Along the sensory side the early defects are not so easily recognised as are those on the motor side, but yet they are sufficiently common to deserve notice. I was surprised to find, in looking through my notes of cases, that neuralgia, headache, sciatica, rheumatic pains, and the like were almost universally recorded as having been noticed a year or more before general paralysis was recognised. Headache or facial neuralgia was the most common, and with this complaints of tenderness or feeling of lightness in the head. This is noteworthy, for among the insane generally headache is very rare. I think double sciatica, too, is a symptom not to be overlooked, and if it is recurrent and associated with any change in habits or character, it is a warning not to be forgotten; it is of interest to remember that in the West Riding reports considerable changes were described in the sciatic and other peripheral nerves in general paralysis.

Loss of sight of a temporary nature may be present, and may or may not coincide with optic neuritis. Dr. Wigglesworth has pointed out recently, as did Clifford Allbutt formerly, that the state of the optic discs may give important information in some early cases of general paralysis, and in several instances of early mental instability I have given an unfavourable prognosis because of the abnormal state of the discs, though these were little beyond the possibly normal limit of redness.

Afections of hearing, too, are more common than I expected among the warnings of general paralysis.

Alterations in the senses of taste and smell are also not uncommon. Voisin pointed out that inability to detect the smell of pepper was a common and early symptom, and though I cannot say that I have found this to be a very common sign, yet it does occur in some cases; and I have records of several patients in whom there were profound alterations in smell and taste years before general paralysis was suspected.

In all these sensory disorders are to be noticed either pain which may be due to local nerve disease or defect which may be due to cortical lesion. Hallucinations of the senses have in my experience been of very rare occurrence. It is of importance to recognise that with the special senses progressive loss of the highest refinement is manifest. A general paralytic artist early loses the fine balance of tone, and his colours become bold and crude. I have in some cases noticed the colour defect precede the mechanical loss, bad painting being noticed before bad drawing, and, though not musical myself, I believe the same is true of musicians—that they lose some of the finer relations of time before they do those of tune.

In calling attention to the more intellectual changes which may occur as warnings of general paralysis, I must say that the gradual loss of power of social accommodation is one of the earliest and most marked of these; slowly and insidiously the patient falls out of step with his fellows, while he is quite unconscious of his failure, and frequently mistakes his position for one in advance rather than in rear. I have spoken of such cases already in the artist and musician, and I may here refer to the actor whose memory fails him or whose enunciation is no longer clear, the artisan who makes misfits, and the *danseuse* whose *pas* are faulty; judgment fails, and friends notice this before relatives. Memory for recent events and for engagements is defective, and this is specially marked if any fainting or other fits have occurred; loss of power of attention and want of persistence are very well marked, and restlessness, which may be motor or mental. In cases of general paralysis in which the mind suffers before the body, nearly all the defects just referred to occur in greater or less degree. Besides the above, moral weaknesses or faults are very common. There seems to be almost a special set of faults met with in early general paralysis: stupid stealing and thoughtless indecency; the general paralytic putting all sorts of useless but handy things into his

pockets, and often when caught in the act protesting that they are not there; in the indecent cases assault is less common than exposure; this may be associated with lust or only be due to negligence; there being a distinct period when buttoning is a difficult action. There is not a single mental faculty which may not be early and specially affected, but certainly the higher and more purely social acquirements suffer earliest.

The next group of early symptoms, classed as Instability, can only be accepted as a provisional and convenient one, there being little else in common. This is evidenced both on the motor and mental side; in the former there are tremors of the finer muscles, uncertainty of gait, and tendency to falls; it is a very common thing to hear that a fall or falls have been the cause of this general paralysis, whereas they were the result of early paresis. Restlessness, again, may be a result of this instability, and mark a very important stage during which endless things are started only to be cast aside on the first fresh suggestion. The instability is marked almost always by a readiness to be affected by stimulants or drugs, the early general paralytic easily becoming drunk, and easily being poisoned. I have in some cases had my attention called to the case being one of general paralysis by the readiness with which serious symptoms have followed the use of hyosciamine. I am inclined to think, too, that the effect of atropine on the pupils is more rapid and more persistent than in healthy persons. This evidence of weakness is practically of very great value. I have known a single glass of champagne cause intoxication in a young man who was not then supposed to be a general paralytic, and in such cases social trouble may often arise as a consequence; the damaged brain, whether the injury be from without as from a blow, or from within as the result of a growth, an apoplexy, or a vascular lesion, reacts abnormally to alcohol.

Change of temper and character are probably the most constant of all the changes which are noticed in early general paralysis, the quiet man becoming noisy and the saving one extravagant; on the other hand, the extravagant man may become penurious and the gentle man passionate. In health, we give evidence of our education, and in general paralysis we witness to our organic nature. Change in character, instability of purpose, occurring with some motor weakness, almost always point to general paralysis if met with in a middle-aged man. Self-feeling may be exaggerated and hypochondriasis may be one of the warnings of general paralysis. In such cases, as a rule, the morbid ideas are centred in the gastrointestinal tract, and in addition there are physical signs, such as inequality of pupils or speech defect to aid us.

If general paralysis begin with hypochondriacal ideas, these rarely occur long before the more characteristic symptoms of the disease; but I have often been consulted by patients who, with alternations of buoyancy and depression, have at length told me with anxiety they feared they were general paralytics; and some few were true prophets. There is a very special form of weakness with a feeling of dread, which in these cases is the warning. (Probably most of my audience think they are general paralytics by now, but this feeling will pass.) I have already pointed out that the occurrence of epileptic fits in middle-aged men is cause for alarm, and in my experience the occurrence of marked hysterical or hysterio-epileptic fits is even more alarming. I have met with several young married men who, without sufficient cause, became emotional, and later subject to true hysterical fits, during which consciousness persisted, and several men were needed to hold the patient on the bed to prevent him from injuring himself. In these cases, with time, other signs of loss of control developed, and the patient was then recognised to be a general paralytic.

The sudden outbreak of mania is a frequent precursor of general paralysis, and this is specially interesting when it assumes the form of acute delirious mania (grave delirium). In this, as in the cases of local lesions of the brain, there seems to be a process which lowers the vitality of the nervous system, and renders it liable to degeneration. Suffice it to recognise that after steering your case through all the perils of "brain fever," you may find the temporary improvement followed by all the signs of general paralysis which may run a rapid course. The process of degeneration as a rule follows closely on the heels of the acute disease.

In most cases of mania there is a stage, longer or shorter, of melancholia, but in some cases the explosion of maniacal excitement is quite sudden, resembling an epileptic seizure, and this form of mania may precede general paralysis; without any apparent cause a violent fit of mania occurs, to be followed by distinct signs of general paralysis.

But already I have more than occupied the allotted time, and yet have but glanced at the main points of my subject. I have not noticed the occurrence of vasomotor troubles, or gone into many of the details of decay and its threatenings, but before leaving the subject I would specially call attention to the fact that warnings of general paralysis may be present for years, and that almost certainly they are present for a year at least before the symptoms induce even the sensitive specialist to scent out the disease. This is but the measure of our present ignorance, and it is for others to fill up the gaps.

With a syphilitic history, or the history of brain injury, do not neglect early fatigue, fainting or other fits, loss of smell, vague optic disc changes, unaccountable knee phenomena, unusual headaches, neuralgia and sciatica, change of character, and progressive loss of the highest control; be observant and charitable to moral lapses, and do not forget the forms of instability I have described.

I began by saying that I believe general paralysis has a local origin in many cases, and it may be that the surgeons will learn how to scrape necrosed brain as well as necrosed bone. For my own part I am not very hopeful, for I believe the degeneration follows on the predisposing condition. The fungi grow on the dunghheap, but do not form it.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

SCARLET FEVER AND PUERPERÆ.

THAT the proximity of scarlatina to a woman during the puerperium gravely alters the prognosis there is surely abundant evidence to show. The following is another case.

Mrs. P., aged 28, multipara, in good health, was confined in her own house on August 17th. Three weeks previously two of her children took scarlatina, of whom one was convalescent at the time of the confinement, and the other died five days before it. As fumigation and other means of disinfection were objected to, and only imperfectly carried out, I insisted that Mrs. P. should go for her confinement to a relative's house, which was only a few doors off, and quite at her disposal. Notwithstanding every argument and entreaty, she persistently refused to go, and since she was thoroughly unreasonable, I, as a last argument, declined to attend her. She was delivered of a healthy child by a midwife. Three days later, August 20th, I heard that she had severe pain and swelling of the left ankle. On the 21st I was called in and found arthritis of the ankle, tenderness over the uterus, and a temperature of 104°. Ordered *sod. salic.* 20 grains every four hours.

August 22nd. Delirium, abdomen blown up, very evident peritonitis. *Sod. salic.* stopped, and quinine, hydrobromic acid and *hyoscyamus* given.

August 23rd. Patient rational, arthritis of right elbow, lochia stopped. Opium given.

August 24th. Numerous bedsores and pericarditis.

August 25th. Pericardial effusion, which became extensive, and ended in death next day. No rash appeared.

A medical friend has told me that he had safely delivered a woman in the same bed with a child ill of scarlatina; the above case shall prevent me attempting such a thing. No doubt it might be safely done, especially in multiparæ, where only a medical man made the fewest possible vaginal examinations and with every antiseptic precaution; examinations by a midwife would greatly increase the risk of inoculating the poison. Even with the greatest care there must be risk to a parturient woman in any house containing scarlatina. The above case occurred during an epidemic of scarlet fever in a country district where I was compelled to attend both scarlatinal and obstetric cases; but I considered myself comparatively safe in attending the latter where there was no fever in the house, as I always changed my clothing and used every antiseptic measure before attending a labour. None of these cases deviated from the normal, although I had on several occasions to introduce my hand within the uterus.

Hamilton, N.B.

JAMES ADAM, M.A., M.B., C.M.

SOME years ago I was attending two families with scarlet fever (rather severe). The mother of the first was about 38 years of

age and in her last month of her seventh pregnancy, thinking the pains she was enduring were due to the fatigue of nursing. She was confined in the bed where the two children were lying. She made a rapid recovery.

The other case; aged 40. She was confined in the same room with four cases. Notwithstanding she had been nursing the children before her confinement, she recovered without a bad symptom.

THOMAS WILSON, M.R.C.S.Eng.

Wallsend.

I FORWARD the two following cases: (1) Woman confined; two days afterwards developed scarlet fever and recovered; baby took it and died. (2) Woman found to have scarlatina when in labour. No particularly bad symptoms afterwards, and the disease seemed to run its usual course. The baby took it, and also recovered.

Knottingley.

T. PERCIVAL, M.R.C.S.Eng.

IMPERFORATE HYMEN WITH RETAINED MENSES.

ON March 8th, 1882, I was called to see a tall, well-developed, but strumous housemaid, aged 17, who was suffering from retention of urine, with great lumbar pain. She had never menstruated, but had suffered from previous urinary retention, but this shortly passed off. She had always had a large body. I found the lower part of the abdomen distended by a prominent, even tumour, reaching as high as the umbilicus, in shape similar to a gravid uterus at five to six months. The swelling was very tender to the touch, with an indefinite sense of fluctuation. The vaginal orifice was closed by the hymen, which was extremely tense and very thin. The dark, purplish retained fluid was visible through the membrane, and looked as if it would soon burst through. One pint and a half of urine was drawn off with great relief, but the backache continued. On March 10th, under carbolic spray, and without an anæsthetic, an incision was made through the length of the hymen, about three-quarters of an inch. A large quantity of fluid escaped; 36 ounces were measured, but a good deal more ran over the vessels placed to catch it. A carbolised plug was placed in the orifice, and a pad and a light abdominal compress applied. The next day the uterus was syringed three times with weak Condyl's fluid. Morphine was given and strict antiseptic treatment was used. On March 12th peritonitis set in. Her condition was extreme, and gave on March 18th apparently no hope. The washing of the uterus was continued throughout from twice to five times a day, sometimes with weak Condyl, sometimes with carbolic. The first day that washing of the uterus was uncalled for was April 4th, after which she steadily rallied, and I last saw her in excellent health in 1887.

It is obvious that perfect antiseptic treatment in such a case and in such a region is almost impossible. I would suggest in a similar case, after evacuation of the contents, the injection of glycerine, with or without iodoform suspended. I can conceive no advantage from anæsthesia, unless complete removal of the membrane or forcible dilatation is contemplated. Either plan would render the treatment more difficult, and the case more prone to septic changes. After the operation, certainly before three days had elapsed, the aperture was so contracted that syringing could only be performed by means of the small elastic rectal tube of a Higginson's syringe.

I do not think, nor did the late Mr. Sweeting, who was with me, that in this case any advantage would have accrued by aspiration or a more limited incision; for such was the nature of the fluid that the largest-sized needle must have become blocked, and the *vis a tergo* was so great that the forcible ejection of the contents would in all probability have rendered the aperture as large as it was intentionally made.

H. CALTHROP ALLINSON, M.R.C.S., L.S.A.,
Surgeon West Norfolk and Lynn Hospital, Associate
King's College, London.

A CASE OF CONCEALED ACCIDENTAL HÆMORRHAGE.

ON October 5th, 1889, a man came to my house, about twelve at night, and most urgently requested me to go and see his wife, who he said was dying. As the case was so urgent I advised him, while I was dressing, to see if he could find some medical man who had not gone to bed. As I got to the street I saw the man hurrying after me with someone else, for whom I waited, and we entered the house together: there we saw a woman lying in bed, icy cold, with a cold clammy sweat on her face, quite pulseless, restless, sighing, and in fact with all the symptoms of extreme