Shiach. At the time of writing she was 36 years of age and still living. Besides marked changes in the jaw, nose, hands, and feet, she had a low, retreating forehead, with thickening of the superciliary ridges, severe pain in the head, but no ocular symptoms; her mental state was melancholia with delusions. There was also deformity of the spine and sternum, and thickening of the ribs and clavicles. Another woman, act. 37, was confined in an Italian asylum, on account of delusions of suspicion and acts of violence. A detailed account of the post-mortem appearances is given by Tamburini.

Throughout the asylums of the kingdom there is in existence a very large collection of post mortem records. Now that the characteristic features of the allied group of diseases—osteitis deformans, acromegaly, hypertrophic pulmonary osteo-arthropathy, and myxoedema—are more thoroughly known, it would be exceedingly interesting to have the autopsy books searched, and the result made known. I am fairly convinced myself that cases would be found. Very probably some of the cases described as hyperostosis of the skull would prove to belong to one or other of these diseases. The main drawback to such a search would unfortunately be the scantiness of the information supplied.

ON THE TREATMENT OF SOME OF THE MORE COMMON EYE AFFECTIONS.

By G. A. Berry, M.B., F.R.C.S.Ed., University Lecturer on Ophthalmology; Ophthalmic Surgeon, Royal Infirmary, Edinburgh.

(Continued from page 366.)

Foreign bodies are frequently lodged on or in the cornea. A great deal of harm may be done if they are not removed early, or if proper care is not taken in removing them. At all large factories and workshops where the men are liable to get metal filings or other chips or sparks, popularly known as "fires," from red-hot metal, into their eyes, there are some amongst the workmen who have acquired considerable skill in removing such foreign bodies. Unfortunately, however, the instruments which they use for this purpose are not generally particularly suitable, or kept in a manner commensurate with the skill with which they are employed. They are in fact far from clean, as a rule, in a surgical sense, and consequently, especially where the cornea is picked at for some time before the foreign body is dislodged, it is apt to be infected and become ulcerated.

The first point, then, to attend to in removing bodies from the

---

1 *Lancet*, London, 1893, vol. ii. p. 369.
2 * Riv. sper. di freniat.*, Reggio-Emilia, 1894, p. 559, and 1895, p. 414.
cornea is to use an aseptic instrument. To neglect this precaution is, morally speaking, criminal. The best form of instrument to use is a corneal spud, either smooth or, preferably, grooved. But any sharp-pointed knife will do, and in the case of deep-lying foreign bodies may even be more suitable.

Another point to be attended to is to take care to avoid scraping away any more of the corneal epithelium than necessary. The spud or other instrument must, of course, be dug in as far as is required to remove the foreign body. But one's attention must be confined to the one place at which the body is lodged. Too much scraping about in the vicinity must be avoided. To work with the least risk of unnecessary scraping, the patient's head and eye must be properly fixed. The best way to do this is to seat him on a chair facing a good light, or, if the operation is performed after dark, in such a way that an assistant is able with a convex lens to concentrate a beam of candle or gas light on the cornea. Then, standing behind him with his head leaning against the operator's chest, the lids are held apart with the fore and middle fingers of the left hand. These fingers should be pressed against the margins of the lids, otherwise it is not possible to counteract properly any efforts that the patient may make to close his eye. At the same time, by slight pressure of their points on the globe itself, above and below the cornea, one may sufficiently control its movements. Cocaine renders it possible to remove foreign bodies without causing pain, and also generally ensures steadiness on the part of the patient, so that it is seldom that any particular skill is required in the operator to enable him to confine his attention to the foreign body, and not wound any other part of the cornea.

The main difficulties, when the precautions mentioned have been taken, are associated with the removal of deep-lying bodies. Sharp, irregularly-shaped small pieces of stone or metal often lie deeply embedded, and in a track which passes obliquely into the corneal substance. There is some danger of pushing such bodies through into the anterior chamber. A sharp-cutting fine knife or needle should be used to open up the track well before any attempt is made to push a spud in behind the body.

The subsequent treatment of a case in which a foreign body has been removed from the cornea, should depend upon the depth and appearance of the wound which is left. In the majority of cases, taken in time, all that is required is to keep the eye clean with boracic acid lotion for twenty-four hours. Other cases may have to be treated on the lines already laid down in connection with corneal wounds.

Inflammation of the iris.—The iris is not only relatively frequently inflamed, but serious harm is apt to result if an iritis be left to take its own course or receive improper treatment. For these reasons, the diagnosis is a matter of great practical importance.
In all cases in which the white of the eye is congested, the very first question to be considered is as to whether or not this indicates the presence of either an already established or a threatened attack of inflammation of the iris. In this respect it should be remembered that it is better to err on the safe side and begin to treat as for iritis, even when it does not exist, than to overlook its presence and adopt unsuitable treatment.

A careful examination, especially of the distribution of the hyperemic area, the transparency of the aqueous humour, and the lustre or glossiness of the surface of the iris, should seldom fail to lead to a correct diagnosis in the first stages of an iritis. Later on, the irregularity in the shape of the pupil, or its immobility, and the greater or less defect of vision, render the diagnosis easy. It is, however, in the early stage that it is perhaps most important no mistake should be made. This stage, too, more frequently comes under the observation of the family physician than of the ophthalmic surgeon. He it is who will have in many cases to distinguish between the symptoms of a superficial inflammation and a deep, such as iritis; and should he find the diagnosis difficult, it will be better for his patient if he is not allowed to run the risk of delay in adopting a treatment by which the evil effects of iritis may be kept off. A false alarm in this respect is preferable to a neglected opportunity.

The only other condition besides superficial inflammation of the eye, with which there might possibly be a difficulty as to differential diagnosis, is glaucoma. It is important to bear this in mind, as glaucoma is also a condition for which neglect of proper treatment may do harm, and which in the congestive form may present appearances not unlike those of iritis. The age of the patient, the previous history of "halos" and obscurations, the condition of the field of vision, and above all the peculiar stippled and steamy appearance of the cornea, would point more or less definitely to glaucoma. A necessary rider, therefore, to the somewhat rule-of-thumb advice to treat for iritis, when a congested state of the eye left one in doubt as to the origin of the congestion, would be to make sure before doing so that there is no glaucoma.

One way in which the congestion of the white of the eye which is indicative of deep-seated inflammation, differs from that associated with conjunctivitis only, is in its distribution. In both cases there may be more or less redness of the whole of the white of the eye, but whereas, as mentioned in connection with conjunctivitis, the redness in that case diminishes in intensity from the periphery to the cornea, it is just the opposite with a deep congestion. More especially, then, when one sees a dense injection of fine vessels surrounding the cornea, must one's attention be directed towards the existence of deeper mischief. Of course, in any such case the cornea itself would be carefully inspected and, in the absence of any abnormality there, the cause of the
circumcorneal injection looked for in the deeper structures of the eye.

Hyperæmia of the iris itself causes, according to its degree and the original colour of the iris, more or less appreciable change in that colour. Light irides show slight changes in vascularity more readily than dark. Where there is any circumcorneal injection then in one eye only, a careful comparison should be made, in a good light, of the two irides. Any difference that there may be in respect to their colour, and due to congestion, is always most apparent in the areas immediately surrounding the pupil. As soon as the engorged vessels of the iris begin to transude, the serous surface loses its beautiful gloss and becomes dulled. A difference in this respect also should therefore always be looked for, where there is any reason to suspect inflammation of the iris.

Pain is not always present in iritis, and therefore, although it is, from the point of view of treatment, an important element to consider, it is of comparatively little value in diagnosis. Still, where with other appearances of iritis there were found to be localised spots of tenderness on pressure on the eye, and a history of severe nocturnal exacerbations of spontaneous pain, these symptoms would be useful in further helping to establish or confirm the diagnosis.

Whilst, then, with proper care there should usually be little difficulty in diagnosing iritis, the further diagnosis of the cause of the localised inflammation is often by no means an easy matter. Fortunately, however, the treatment is only to a certain extent influenced by the correct diagnosis of the cause. The most essential points in the treatment apply, in fact, to all forms of iritis. Unquestionably the most important thing to do in all cases is to secure and to maintain, as long as the inflammation lasts, a thorough dilatation of the pupil. If a case of iritis be left to take its own course, or treated without the use of a mydriatic, it almost invariably happens that adhesions (synechiae) form between the posterior surface of the iris and the anterior capsule of the lens. Sometimes, indeed, when there is much fibrinous exudation from the inflamed iris, some of it may become organised into a membrane stretching across and more or less completely occluding the pupil. The risk of this happening is all the greater, owing to the tendency that there always is for the pupil to be contracted when the iris is inflamed.

Synechiae alone, though they do not cause any direct impairment of vision, are always an undesirable complication. They often, fortunately, only form to such an extent as to tie the iris down at certain points without causing any continuous adhesion between the two surfaces. This, while in itself of little consequence, is a state of matters which increases the risk that the eye runs from every subsequent attack of iritis. The possibility of recurrence, too, should always be kept in mind. Some varieties
of iritis are very apt to recur. It has even been supposed that the existence of the synechiae was an important factor in determining the recurrence. The stretching of the iris caused by dragging on the adhesions, as the pupil tends to dilate and contract under the various influences almost constantly at play, has been looked upon as possibly causing sufficient mechanical irritation to lead to inflammation. This view is, I think, hardly sufficiently probable to serve as a guide to treatment. At all events, no attempt to detach such posterior synechiae, when they are of sufficiently old standing to have become regularly organised, should be made. The only thing that may be justifiable, and as to the indications for which I shall have to say more presently, is to perform an iridectomy. Fortunately, when synechiae are ruptured during the excision of a piece of iris in this operation, it is extremely rare to find that their attachment to the lens capsule is sufficiently firm to lead to any laceration of that membrane. Practically speaking, this never occurs. If it did, the risk of iridectomy causing cataract would be very much greater than it actually is, and the great benefits which are derived from surgical interference in cases of neglected iritis would be seriously curtailed.

Whilst, however, the supposed influence is causing recurrence which has been ascribed to synechiae need not be considered, it does not follow that a more or less constant drag on these adhesions has never, under any circumstances, an irritative effect upon the iris. The conditions in this respect are undoubtedly quite different when we compare the cases where there exists at the time an inflammation of the iris with those in which the iritis has long since subsided. It is a very common error to suppose that because it is in general desirable to use atropine or some other mydriatic during the whole course of an attack of iritis, it is always right to do so. I have, in many instances, by advising the discontinuance of atropine, where the patient's medical attendant has been using it freely, seen a very rapid improvement take place. The reason of this is that, as the main call for a mydriatic is, as just explained, to produce dilatation and thus prevent synechiae, the *raison d'être* of such treatment is absent when, the mydriatic having been begun too late, the pupil cannot be properly dilated. A dragging to no purpose on the already firm synechiae with the iris inflamed may do harm. It certainly tends to irritate and to keep up the inflammation. As, too, the continuance of the inflammation means often the exudation of more and more plastic matter, the consequences may be more serious than if the patient were left without any treatment at all. A practical guide in this respect may be formulated as follows:—If the free use of the mydriatic (applied, *i.e.*, three or four times in the twenty-four hours) for three or four days in any case of iritis, seen or recognised only some time after it has begun, fails to cause any satisfactory dilatation of the pupil, it should be discontinued.
Another practical point connected with the use of atropine in iritis, and one as to which the proper course to take is often a matter of no little difficulty, is the possibility of the treatment leading to increased intra-ocular tension. In elderly people especially, it is important always to be on the lookout for this complication. Should it arise, the first thing to be done is to stop the atropine. If the tension is then soon restored to normal, it may be resumed before the pupil has become quite small. It must then, however, be used with caution, and not so free a dilatation aimed at. The best thing to do is to diminish both the frequency of the applications and the strength of the mydriatic solution. A $\frac{1}{4}$ per cent. solution of atropine, used once every second day, should be tried; or homatropine solution of the same strength may be substituted for the atropine. Where the glaucomatous symptoms persist, or return with the use of even a weak mydriatic, a sclerotomy, done in the manner to be afterwards described, is in some cases useful. The cases in which sclerotomy may be resorted to are the cases of serous irido-cyclitis; cases in which the inflammatory symptoms are less pronounced, and pain either not at all complained of, or, comparatively speaking, slight. In more violent plastic iritis, any operation at the time of the inflammation is, in my opinion, contra-indicated. Mydriatics must be altogether given up, and surgical treatment deferred until after recovery. If anything then seems advisable, an iridectomy is generally to be preferred to sclerotomy.

In addition to keeping the pupil dilated, whenever this is possible, it is important, in all cases of iritis, to keep the eyes shaded from the light. This may either be done by darkening the room or by the use of dark glasses (neutral-tinted or “smoked” glass, not blue). If the patient is able to be up, the latter is preferable. He can then occupy the same rooms as, and enjoy the society of, other inmates of the house. Both eyes must be shaded in this way. It is useless to cover the inflamed one with a handkerchief or bandage, as is often done, and leave the other one exposed to the untempered and constantly changing light of an ordinary room.

During an attack of iritis, any use of the eyes for reading or sewing, or work of any kind calling for accommodation, must be prohibited. If there be any difficulty in enforcing this, it is a good plan to drop an occasional drop of atropine into the good eye, which, by paralysing the ciliary muscle, makes reading difficult or impossible without convex glasses, unless there be a sufficiently high degree of myopia. Even in myopic patients, although the accommodative effort made on reading is not nearly so great, it is better not to allow it.

In many cases, and particularly those of a rheumatic origin, the pain which accompanies inflammation of the iris is often so great as to call for special treatment. The pain may be more or
less relieved by both local applications and drugs taken internally. It is particularly aggravated by light and by cold. Where it is intense, therefore, it is best to keep the patient in semi-darkness and in bed in a room in which the temperature is kept equable, and protection made against draughts. Generally, the pain is most severe during the night, especially from midnight to four or five o’clock in the morning. Leeching (either with the natural or artificial leech) used to be a very common treatment for painful iritis. No doubt leeches applied to the temple have often a very marked effect in dispelling the pain. Their effect is, however, only temporary, and is in no way superior to less troublesome means of producing relief. They do not influence in any way the course of the inflammation. In my own practice I have long since given up leeching, and rely entirely upon hot fomentations. The fomentations may be used for a quarter of an hour at a time, every two hours or oftener, at the times when the pain is most severe. After using the fomentations, the eye may be covered with a pad of cotton-wool, retained by a loose bandage. Cocaine dropped into the eye immediately before fomenting sometimes helps, but it should only be used in cases where the pupil has dilated well under atropine. Of drugs, antipyrin in 10-gr. doses, or antifebrin in 5-gr. doses, twice or thrice daily, and salicin, are the most generally useful in relieving pain. In some cases salicin seems even to have the effect of cutting short an attack of iritis. It should be used from the beginning, being given in 7- or 8-gr. doses every hour for ten or twelve hours, or until toxic effects are manifested; then thrice daily in 10- or 15-gr. doses.

In purely rheumatic cases, salicin, in addition to the local treatment described, is the best thing to use, altogether independently of the matter of pain. Rheumatic iritis is not necessarily a condition affecting only those who exhibit a marked rheumatic diathesis. All acute cases in which the inflammation has followed exposure to cold, or in which a distinct chill has followed upon overheating, and in which at the same time there is no other more or less obvious cause, such as recent syphilis, gonorrhea, malarial or other fever, may be referred to this category. Iritis from exposure to cold, either in distinctively rheumatic subjects or in others, is by far the most common variety. Markedly recurrent cases of iritis are mostly met with where there is a true rheumatic or gouty diathesis.

In the treatment of syphilitic iritis it is well to begin mercury at once. Of the different ways of giving mercury, I have personally had most experience of inunctions. The mercurial ointment should be rubbed well into the skin of the axille or inner side of the thigh for fifteen to twenty minutes once daily, and this continued for at least a month. A daily painting of the gums with a little tincture of myrrh, and frequent brushing of the teeth (not less than four times daily) with Condy’s fluid will almost invariably keep away any complication with stomatitis. But, of
course, patients have to be carefully watched during this treatment, more especially as they have frequently already undergone mercurial treatment, though usually a very inefficient form of such treatment, before the onset of the iris inflammation. What I have seen, at the hands of French surgeons, of intra-muscular injections of the biniodide in syphilitic eye affections generally, has led me to regard that method as a sufficiently efficient way of using mercury. I have, however, no personal experience of it, nor do I believe that, although more cleanly and perhaps less troublesome, it is in all respects quite as satisfactory as injection. I should, however, certainly give it the preference over either internal administration or subcutaneous injection. Subconjunctival injection, so far as my experience goes, is also not to be recommended, at all events in iritis.

One practical point of some importance, as it necessarily influences the treatment which one adopts, is the question as to the diagnosis of syphilitic iritis. In many—in fact in most—cases of iritis from this cause, there is nothing in the local appearances of the inflamed iris to point to its syphilitic origin. Owing to the frequency of rheumatic iritis and to the possibility of the resisting power of a syphilitic individual being no doubt more or less reduced, one may often have to ask one's-self whether the mere fact of an individual who has at one time acquired syphilis, having an inflammation of the iris, is sufficient to justify the diagnosis of syphilitic iritis? There certainly seems to me to be too great a tendency in many quarters to ascribe an iritis to direct syphilitic causation, wherever there is a syphilitic history, or even a reasonable suspicion of such a history.

The undoubtedly syphilitic forms of iritis are met with in two varieties. In the first, one or more nodular elevations make their appearance on the surface of the inflamed iris, and increase pretty rapidly in size, becoming yellow at first, and later on, owing to vascularisation, assuming more of a rusty-coloured tint, and then slowly becoming absorbed with the disappearance of the other inflammatory symptoms, and leaving very little trace, it may be only a slightly discoloured patch, to indicate the spot which they occupied. This is the so-called gummatous iritis. It occurs within the first year after the primary infection, and is usually confined to the one eye. The whole clinical appearance and course of this affection suggests the actual transference of syphilitic matter to the iris tissue. In the other variety of syphilitic iritis, there is nothing essentially peculiar in the local inflammation itself. There are, however, practically always at the same time, or there have been shortly before its appearance, other manifestations of secondary syphilis, and a history, or at all events definite indications, of a recent primary sore. This variety is mostly, indeed probably almost invariably, bilateral.

These two varieties of iritis call for mercurial treatment as
that which is best calculated to remove as soon as possible so serious a complication of syphilis.

Iritis occurring under other conditions in syphilitic individuals, for instance, a year or more after the primary symptoms—and then it may be in one eye alone—should not be looked upon as so essentially syphilitic as to call for mercurial treatment. According to the patient's general condition or diathesis in other respects, salicin, iodide of potassium, or iron and quinine, are more suitable drugs to use, in addition to the necessary local treatment. It is well, too, always to remember that iritis is really an unusual complication in syphilis. The various statistics give proportions varying between 1 and 4 per cent. of all cases of syphilis. Inasmuch, too, as in many of the statistics no very critical distinction is made into secondary syphilitic iritis and iritis simply occurring in those who have been the subjects of acquired syphilis, the lower figure appears to me to more correctly express the actual proportion all round than the higher.

Another of the common varieties of iritis which should be recognised on account of calling for special treatment, is that which usually goes by the name of serous iritis. More correctly, the condition is one of serous irido-cyclitis, as the ciliary body is always inflamed at the same time, and a more or less copious, more or less dense, exudation poured out from its processes into the anterior portion of the vitreous.

The slow, insidious, and painless course of this affection brings it often relatively late under the observation of the medical attendant. Frequently, too, he may fail to recognise it, owing to the but slight apparent inflammatory symptoms which may accompany it. In either case, a good deal of harm may be done by the formation of synechiae before proper treatment is adopted. The symptoms to the patient are mostly, gradually, it may be very slowly, increasing haziness or cloudiness of vision, with a corresponding decrease of acuity. When such symptoms are complained of, especially if the patient be a young or middle-aged woman, and more or less anaemic, a careful inspection of the affected eye should be made. There will then often be found to be a slight haze of the lower part of the cornea, which, on closer examination, can be made out to consist mainly of a number of small spots, which have the appearance of being very deeply placed in the cornea. These spots are, in fact, deposits lying on its posterior surface. There will also be noticed some degree, often slight and partial, of circumcorneal injection. The pupil, too, is sluggish, and only capable of being irregularly dilated by atropine, owing to the presence of synechiae.

In the treatment of this form of iritis, attention has always to be particularly directed to the state of the general health. The condition is one which is always indicative of some kind of malnutrition, or auto-infection. It is very much more frequent in
women than in men. This does not seem to be due to association with any special female disorder, but is probably more connected with anaemia, with a sedentary habit generally, and with constipation. It is sometimes associated with malaria, and with the sequelae of different fevers. Often, it must be confessed, the cause is doubtful, or altogether obscure. The duration, too, of a serous irido-cyclitis is longer, often very much longer, than of other forms of iritis, with the exception of sympathetic irido-cyclitis. The absence of pain, or of any tendency to aggravation from cold, render it unnecessary to take the same precautions to keep the patient's surroundings at an equable temperature. Indeed, in most cases, open air and moderate exercise is desirable, especially in summer. Proper regulation of the action of the bowels should never be neglected, and iron in some form given. In my own practice I have found the natural iron waters, such as Flitwick or Levico, useful, and in summer prescribe these to be drunk slowly outside before breakfast, and in the afternoon, in all cases where the conditions render this possible. Turkish baths are also useful. After fevers, iron and quinine, and a generous diet, with regular intervals of rest, are indicated.

(To be continued.)

THE USE OF QUININE AS A SUBSTITUTE FOR ERGOT IN MIDWIFERY.

By G. OWEN C. MACKNESS, M.D., Broughty Ferry.

One may, I think, assert without fear of contradiction, that in this country, at any rate, the use of no drug is so universal as that of ergot in midwifery. The student who is launching on the unknown sea of his "cases" feels that his first step is taken when he has purchased it—the general medical practitioner, summoned in haste, may forget his chloroform and his forceps, but will not omit to put ergot in his pocket—the midwife gives it in all and sundry cases where delay occurs in the delivery, too often, alas! with most disastrous effects to both mother and child. Our patients, more especially those who have already been through the hands of the older school of practitioners, clamour, one and all, for the "doctor's tea" as soon as the pains begin to flag, and although the younger generation may rather beg for chloroform, it is not probably because they disbelieve in the efficacy of ergot, but rather because they desire their labour to be painless.

The tendency of modern teaching is to condemn its use, and yet in spite of this, and the fact, while the text-books warn us of its dangers and point out its defects, that all of us have probably by practical experience proved how true this condemnation is, it is still almost universally employed. The reason is not far to seek, for in many cases the labour pains are found to fail, and there is