Medical Progress and Hospital Clinics.

[*The Editor will be glad to receive offers of co-operation and contributions from members of the profession. All letters should be addressed to* The Editor, The Lodge, Porchester Square, London, W.]

CATARACT AS IT IS MET WITH IN ORDINARY PRACTICE.

By R. Lawford Knaggs, Assistant Surgeon to the Leeds General Infirmary, and Ophthalmic Surgeon to the Leeds Public Dispensary.

(*Continued from page* 114.)

The additional gravity which invests the case when the injury is situated within the dangerous ciliary zone of the sclerotic, which surrounds the cornea, or when there is reason to fear that a foreign body remains within the eye, need not now occupy our time, but at least requires recognition.

When the lens matter has been completely absorbed, and the dangers of iritis and glaucoma have been successfully avoided, a membrane more or less opaque separates the vitreous from the anterior chamber, and remains an obstruction to vision; and before the treatment can be considered to have been brought to a satisfactory conclusion, a gap will have to be made in the centre of this membrane. Finally, after this, as after the removal of any form of cataract, the eye requires a strong convex lens before it can obtain distinct vision.

When no sight can be restored by the removal of a cataract, no operation should be performed, unless it is desired for the sake of appearance. Those signs, therefore, by which a healthy condition of the retina and of the other structures behind an opaque lens can be recognised are important. The easiest to elicit is contraction of the pupil to light, but it is necessary to close the other eye carefully to be sure that the contraction is the result of direct stimulation of the retina of the eye that is being tested, and not a consensual contraction dependent upon stimulation of the other retina. Better still is the information obtained by holding a lighted candle at different places in front of the affected eye, within the area of its probable field. This should be done in the dark. If the patient can accurately locate its varying positions, it shows that the retina is functionally active over a wide area. This capability is called "projection," and if, in a case of complete cataract, the pupil is responsive to light, and "the projection" is good, there is every reason to hope that a useful eye will be obtained by the removal of the lens. When perception of light is absent, the eye is blind and to operate is useless. There are of course intermediate cases where "projection" is more or less impaired, and in such, where only an imperfect eye can at the best be hoped for, the propriety of operating will have to be decided by the circumstances of the case.

The frequency of the association of cataract with such an important constitutional disease as diabetes invests it with a special interest for those who see much medical practice. Sometimes a glycosuria, which may disappear under the simplest treatment, is found to exist when the patient first comes for advice about his sight. In other cases the glycosuria is marked and persistent, though the amount o urine is not excessive, whilst in others there are the usual well marked diabetic symptoms. A feature of the diabetic cataract is the rapidity of its formation. It is possible that in the early stage, at least in some cases, the opacity is not due to degeneration of lens fibres, for there are a few well authenticated instances in which cataracts formed during diabetes have completely and rapidly cleared up, with perfect restoration of sight, as the constitutional state improved under treatment, and in one case the opacity returned when the diabetic condition relapsed.

We cannot do better than consider in the short space still at our disposal a question of such practical importance as the bearing that this constitutional affection has upon the question of operative interference.

There is no doubt that many of these cases do very well, and that a temporary glycosuria—and even a permanent one, in which there is no associated polyuria—is no bar to a successful issue, and need not lead to any hesitation in recommending operation. In those cases where the diabetes has assumed a chronic form, and is capable of being ameliorated by suitable treatment, favourable results may reasonably be hoped for. But when the disease is acute, when treatment fails to keep it in check, and when the patient, in spite of every precaution, is going down hill, to advise operation is to undertake a grave responsibility.

Though even in this state the healing of the wound may present no difficulty, yet the anxiety and mental disturbance inseparable from an operation of such importance cannot fail to exert a prejudicial influence upon the course of the disease. In the Guy's Hospital Reports (Vol. XLIX., 1892), Messrs. Bellingham Smith and H. E. Durham, in endeavouring to show that operation in diabetic cataract is not always free from risk, quote three cases which terminated in diabetic coma, one on the eighth day, another on the day of operation, and the third on the third day; and though in the first of these death was attributed to worry, quite apart from the operation, yet they are sufficient to show that the effect that may be produced by operative procedures upon the progress of the constitutional affection is a matter for serious consideration in any particular case.

CERTAIN CASES OF PAINFUL MENSTRUATION.

By George Drummond Robinson, M.D. and B.S. Lond., M.R.C.P., Obstetric Physician to the St. George's and St. James' Dispensary, and Physician to Out-Patients, British Lying-In Hospital.

The high standard of civilisation attained in our day has been by no means an unmixed blessing to the human race. With its enormous advantages have come always attendant evils. Its injurious influences are to be traced in every branch of pathology. Here we find them startlingly obvious, thrusting themselves on the notice of the most inattentive observer, there indistinctly visible amidst the thousand forces of heredity, acting on us through a long line of fore-

fathers, or almost indistinguishably mingled with the other complex factors of our daily environment. But always there, obvious or hidden, potent or feeble, working us evil, ceaseless, relentless, ubiquitous.

Perhaps in no part of the domain of pathology is this fact more apparent than in that dealing with the nervous system. To take one morbid symptom alone connected with this branch of the science—pain. There seems no doubt that the higher the state of civilisation the commoner and more marked is pain. Processes entirely physiological in our earlier ancestors or in peoples low down in the scale of civilisation are becoming with us daily more and more pathological by reason of their complication with this symptom. Of this, menstruation is a striking example.

Whilst amongst savage peoples menstruation is, in the vast majority of cases, a purely physiological function, as seldom accompanied with pain as is the process of digestion, with us few women pass through menstrual life without at some time or other suffering pain of greater or less intensity at the menstrual periods.

The pain accompanying menstruation may be situated anywhere in the body and may be of any degree of severity. In its most marked forms it originates in the pelvic sexual organs and is situated in the lower part of the abdomen or back, from which regions it may radiate in various directions. In many instances this pelvic pain is associated with morbid anatomical conditions of the pelvic organs, such as maldevelopment of the uterus and its appendages, exfoliation of the uterine mucous membrane, uterine new growths, and the various pelvic inflammations, acute or chronic.

In a very large number of cases, many of them of the most severe type, the pelvic organs appear to be absolutely normal, and the sufferers are in every other respect perfectly healthy. It is to this latter class of cases, known by such names as spasmodic, neuralgic, or obstructive dysmenorrhœa, that I would direct attention.

The pain may first show itself at any period of life; most frequently it comes on at puberty, but to this there are many exceptions. It is experienced in the lower part of the back or abdomen, and from thence perhaps shoots down the thighs. Paroxysmal in character it comes on in pangs which last a longer or shorter time, and are separated by intervals of comparative freedom from pain. In these respects the pain is very similar to that of labour. During one of these paroxysms, in a severe case, the patient presents all the appearances that accompany the severest forms of abdominal pain, such as that due to biliary, renal, or intestinal colic. Unconscious of all save her own terrible distress, with stiffened limbs and breath long held, the sufferer lies wherever she may have fallen, writhing and groaning in agony. The skin is pale and covered with a cold sweat, there is retching and vomiting, the pulse is small and rapid, occasionally there is maniacal excitement, such as is sometimes seen during labour. On the other extreme, in the mildest cases, the pain is so slight as to be little more than discomfort.

As a rule, these attacks precede the menstrual flow by some hours the pain continues after the flow appears, and gradually subsides as this becomes well established. In most of these cases the menstrual loss is scanty. Should a patient suffering in this way become pregnant, a labour at or near the full time will probably completely cure or, at any rate, greatly relieve the condition. Experience, however, teaches us that such persons are apt to remain sterile, and, if that should be the case, marriage almost invariably aggravates the pain. One frequently meets with cases of women who, having for years endured the pain of this form of dysmenorrhœa without medical advice, are driven to seek relief to their intolerable sufferings after a few months of sterile married life.

Passing completely over the vexed question of the pathology of this condition, it will be useful to regard the subject entirely from the point of view of treatment, and to consider the best methods of relieving such cases.

Hygienic measures—so often underrated or entirely overlooked—are of the very greatest importance. There should be exercise and rest both for mind and body, carefully regulated according to the requirements of the individual case. Any morbid condition, such as anæmia or, most important of all, constipation, should be appropriately treated.

The menstrual loss, usually scanty, may often with benefit be encouraged by the old-fashioned and popular method of combining a hot foot-bath with a dose of diffusible stimulant.

Of drugs directly attacking the pain I have found a mixture of bromide of potassium with antipyrin given in small doses, repeated at frequent intervals during the attack, most useful. I have also found the tincture of castoreum, phenacetin, and exalgine successful in some cases. Other drugs as guaiacum, nitroglycerine, and cannabis indica are worthy of a trial. Opium or morphia should never be given, for since the pain recurs month after month for many years the opium or morphia habit is exceedingly liable to be established. In a certain number of the most distressing cases drugs have little or no effect in relieving the pain. Under such circumstances the most brilliant results may follow operative treatment. That operative treatment is unsuitable for all cases and should be resorted to only in a limited number cannot be too strongly insisted upon. If after a thorough trial drugs fail and the pain is so severe as to affect the general health or interfere seriously with the performance of the patient's duties, then operative treatment holds out a fair prospect of cure or at any rate of considerable relief.

Of the many operations practised for the relief of this morbid condition, I can from personal experience strongly recommend rapid dilatation of the internal os uteri by means of graduated bougies. In my experience it is quite as effective as the other procedures, and if carefully performed is practically free from any danger to the patient. An anæsthetic should always be administered. In my student days I have seen this operation performed without anæsthesia. The region of the internal os (and to a less degree the endometrium also) is, however, very sensitive in these cases, and the passage of the bougie invariably sets up the characteristic pain with such intensity that it is impossible to dilate it thoroughly at a single operation without anæsthesia.

An antiseptic douche is first given, and the anterior lip of the cervix uteri being seized with Volsella forceps, traction is made until the external os presents at the vaginal orifice. Graduated bougies (Hegar's answer admirably) are now passed one after the other until by the feeling of resistance experienced at the internal os, it is judged that that orifice has been thoroughly stretched. To dilate beyond this degree is unnecessary, and not devoid of danger.

After the operation the patient is kept in bed for a day or two. The insertion of an intra-uterine stern pessary after dilatation is of very doubtful value, and exposes the patient to risk of pelvic inflammation.

In the majority of cases this simple operation relieves the pain—sometimes permanently, sometimes only for a time. Should the pain return again after some months' absence the operation may be repeated, and if carefully performed is quite free from serious danger.

In many cases of sterile women cure of the pain by dilatation is rapidly followed by pregnancy. As before mentioned, the fact that all cases of painful menstruation are not suitable for this method of treatment must ever be borne in mind. There are many varieties of painful menstruation, and for treatment by dilatation the cases must be carefully selected.

Progress in Medicine.

INFECTIVE DISEASES.

Malaria.—A flood of light from various sources is being poured on the ætiology of malarial fevers. The recently translated monographs of Mannaberg and Marchiafava and Bignami, enable us to classify these diseases into two groups, the mild (quartans and most tertians) and severe type (quotidian and some tertians). The latter forms alone are characterised by the presence of parasites resembling crescents, and forming spores.[1] Spontaneous cure may take place through the phagocytic action of the large cells of the spleen and marrow, the destructive action of the fever, and the sterility of many of the parasites. The action of quinine is said by Mannaberg to be most energetic on the spores, and if administered a few hours before the febrile attack, they are killed as they are formed. Crescents are conjugated individuals, and on them quinine has no effect. However, the question of the specific difference of the various clinical types is still one on which many observers differ, but the presence of these protozoa under one form or other in the blood of malarial patients has been shown in most parts of the world.[2] Osler reports on them as found in America. He divides them into the mild types, tertian and quartan,[3] in which, however, double infection may produce quotidian and other clinical forms; and the severe type, more often irregular in its paroxysms, presenting the crescent bodies, and occurring later in the year. His colleagues do not support the view that crescents are the result of conjugation. P. Manson, in the Hunterian Oration, agreed with this classification[4], and with the statement of Osler, that in the severe type the rosette or sporulating, and the pigmented bodies are chiefly found in the spleen and other viscera, and but rarely in the circulation. It is estimated that a million and a half of our Indian fellow subjects are killed annually by these microbes. Among the symptoms produced by them are coma from cerebral thrombosis, anæmia, choleraic diarrhœa, and apoplectiform attacks, often referred to sunstroke. Hence the efficacy of injections of quinine in so-called heat apoplexy. A beautifully coloured chart of nearly 200 forms of the parasite is given by Manson in the *British Medical Journal* of December 1st, and will be found most useful for reference. His view of their life history[5] is that the crescentic and allied forms are intended to pass outside the human body through the agency of some suctorial insect, such as the mosquito, and that the flagella themselves are a form proper to the new habitat. At the Indian Congress, Crombie, as president in the section of Medicine and Pathology, confirmed the Italian discoveries by his microscopical observations, and remarked that by far the most common type in that country was the quotidian in which the rosette forms disappear from the circulation into the spleen and viscera. There are also found remittent malarial and non-malarial fevers. The former are amenable to quinine, and often present two or more broods of parasites whose development is not synchronous. In these, therefore, there is no period of apyrexia. The non-malarial types include (*a*) typhoid; (*b*) "14 day" or Calcutta fever, which lacks all the specific marks of typhoid, though resembling it superficially; (*c*) a persistent low fever with few symptoms or complications, cured by change of air; (*d*) a malignant fever of high temperature, hepatic enlargement, coma, and bilious diarrhœa, lasting about six weeks; and (*e*) simple continued fever, lasting one week or less.[6] The distinction of these types from each other, and especially from typhoid, is warmly discussed there and in America, and though Crombie most carefully enumerates the clinical distinctions, he does not report any thorough search for the typhoid bacillus. The diazo reaction is said by Atkinson, of Hong Kong, to be useful in distinguishing typhoid from some of the others.[7] Hughes, of Malta, seems to identify it (*d*) with Malta fever, in which a micrococcus capable of producing the disease in monkeys replaces the typhoid bacillus; but his account of the symptoms differs considerably from that of Crombie.[8] W. G. Thompson found malarial organisms in three cases of typhoid which were carefully studied. The activity of the malaria did not commence till after the typhoid had run part of its course. He concludes that the two diseases may exist simultaneously without influencing each other or producing a hybrid.[9] Chassiotis, of Athens, describes minutely a type of fever apparently Crombie's (*a*) which differs from typhoid and malaria in the absence of ulceration of Peyer's patches, splenic enlargement and the specific microbes, and, on the other hand, in the constant presence of a diplococcus.[10] The paper is one of great value and interest; Manson's explanation of the transmission of malaria by mosquitoes, or other insects, is identical with that advanced by C. Findlay, of Havanna, for yellow fever, though