It is not to be entertained that we should tap apex-cavities with a free opening into a bronchus, and with diurnal moderate not fœtid secretions, unless, indeed, we could, by such operations, take them out of the influence of the lung-movements, drain them, and heal them, as in other surgical cases. This is, no doubt, visionary; but it has been attempted in America, and may yet come to be safely and effectually done. But there is nothing visionary in draining a deep-seated cavity with foul secretions which are, from their septic influence, poisoning the patient by loading his blood with morbid material, wasting his body by hectic, and rendering his life miserable to himself and those around him, by the intolerable fœtor. I do not know that I have ever seen more distressing cases than some of these, and they loudly call for a remedy. My own belief is that, if the cases be properly selected, every year will add to our successes with this kind of disease.

The conditions favourable to surgical interference should, however, be carefully considered.

The signs of cavity should be undeniable, and they should all be present, and the existence of adhesions of the lung to the pleura should be susceptible of proof at the point at which it is proposed to operate. If you have dulness, marked gurgle, bronchial or cavernous cough, and voice-sounds close under the ear in some of the more dependent parts of the lung, the axilla, or the infrascapular region, and if the patient expectorate at intervals, and pretty copiously, a fœtid secretion, we may be tolerably sure of the case, and, in my judgment, would be quite authorised in tapping. But if such physical conditions be ill-defined, or not present, as in a case I saw last week, although all the other conditions are present, I would not operate.

In acute gangrenous cases, or hæmorrhagic cases where the lung is in a loose, vascular, spongy state; where little fibroid change has taken place and adhesions of the pleura are not evident, the operation should not be performed; the trocar would enter not a defined cavity, but a broken up lung, and hæmorrhage would occur; or the contents of an ill-defined abscess might escape into the pleura. Such were probably some of the conditions which led to a want of success in the earlier cases subjected to this operation, but a judicious and careful selection will give us many successful results.

Another form of case, in which I have declined to operate, has been characterised by all the signs and symptoms of deep-seated fœtid abscess, but the patient's health may be so good that one does not feel justified in submitting him to an operation, which has, no doubt, certain dangers. A girl, aged 25, in one of my wards, had the characteristic expectoration, copious and very fœtid, but she possessed the appearance of perfect health. She was plump and rosy, had no fever, and gained many pounds in weight during a stay of four months in the hospital. The signs of deep-seated cavity were very evident in the middle and back part of the right lung.

I leave this part of the subject by remarking that tapping of basic cavities recommends itself as a means of correcting fœtor, diminishing copious suppurative processes, relieving the fever, and preventing secondary septic infection, and thus, in many instances, saving the patient from impending death, while in others (impossible to cure), it may add great prolongation to life, and remove some most intolerable discomforts.

[*To be continued.*]

EXTRACTION OF A PIECE OF IRON FROM THE EYE BY THE ELECTRO-MAGNET.—At a recent meeting of the Suffolk County Medical Society (*Boston Medical and Surgical Journal*) Dr. B. Joy Jeffries reported a case of removal of a piece of iron from the eye by the electro-magnet. He briefly spoke of two cases, previously reported, where simple magnet had been used, and four where the electro-magnet was employed. These were where the foreign body was in the aqueous or vitreous chamber, but not bedded in any tough tissue of the eye. No case of removal from the cornea had been hitherto reported. September 29th, 1880, a man came to the Massachusetts Charitable Eye and Ear Infirmary with a piece of iron deep in the cornea at the outer angle, projecting into the anterior chamber just behind the sclero-corneal juncture. There was a cut towards the middle of the cornea, through which the metal might have passed. There also was no distinct tract through the cornea over the foreign body. As the metal could not be approached on the outer side in the blood-bearing tissue, it was decided to cut down upon it on the corneal side, and attempt to keep it in place or from falling into the anterior chamber by the constant near presence of the strong electro-magnet of Dr. Bradford's apparatus. On the approach of the magnet the foreign body was seen to move, and by applying it against the cornea the metal was drawn to it and removed.

ABSTRACT OF LETTSOMIAN LECTURES
ON
PATHOLOGY AND MORBID ANATOMY OF DYSENTERY.

Delivered before the Medical Society of London.

BY SIR JOSEPH FAYRER,
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LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—I propose in this lecture to describe the pathology, morbid anatomy, and treatment of dysentery, and to illustrate them by recent cases and specimens, taken chiefly from the Calcutta hospitals and from Netley.

I have already alluded to the general condition, and have anticipated in part what belongs to the pathology of a simple case of dysentery. There is nothing in the temperature that is typical, though in the acute attacks of vigorous persons, especially Europeans, there is a certain slight rise of temperature, as there would be in an acute congestive or inflammatory attack of another kind. But, as it frequently happens (in India, at all events) that the disease is accompanied by malarious fever, we may expect the thermometric variations that characterise that fever, whatever form it may take—quotidian, tertian, remittent, or irregular. The temperature, therefore, is not symptomatic of the dysentery, but of the fever which results from the same general cause. In complications, where the liver, spleen, or other viscera are affected—and especially if suppuration is occurring there—the phenomena of that process will be manifested by high evening temperature, morning falls, and sweating after rigors or chills, such as occur in suppuration from other causes. I have already remarked that the true pathological explanation of multiple abscess in the liver (sueh as that I shall place before you) refers it to pyæmia, and that it differs from that of the insidiously forming liver-abscess, when there is very little alteration in the temperature, which may be only a degree or two above normal. In cases of sloughing dysentery, especially when the sloughs are extensive, and in hæmorrhagic dysentery, when there has been much loss of blood, the temperature may fall below the normal standard.

In perforation, the temperature at first during the shock is sub-normal, but as peritonitis sets in it again rises. This is quite apart from the dysenteric process, and the rise of temperature cannot be regarded as typical of that disease.

The seat of localisation is chiefly in the large, but in scorbutic cases, and in others also, it may extend into the small intestine for several inches above the ileo-colic valve, and the whole intestine, including the jejunum, duodenum, and stomach also, may be involved in the catarrhal condition, whilst the viscera and serous membranes may suffer in the dysenteric process. The liver is especially disposed to suffer in tropical climates, and either ordinary or septicæmic abscess may occur. The spleen and pancreas may be enlarged, indurated, or softened, and become the seat of abscess. When dysentery is associated with periodic fever, the spleen is frequently enlarged; and in such cases there is apt to be splenic cachexia, and the disease is of the asthenic type. The lungs are occasionally involved, and the remarks that I have made in regard to the nature of the so-called abscesses in the liver apply to them.

The bronchial tubes may also share in the dysenteric inflammation, and their mucous membrane become the seat of puriform exudation in the finer tubes, with patches of lobular pneumonia dispersed here and there throughout the lung.

There are other complications—the erysipelatous, scorbutic, and typhoid—and one sees the close analogy of the disease with typhoid and diphtheria, and that, as the seat of the localisation in typhoid is the ileum, in dysentery it is in the large intestines. Does not the tendency of the disease to pass the ileo-colic valve, perhaps, throw some light on the pathology of the so-called typhoid in India, which by some is referred to climatic causes rather than to a specific fæcal origin? If climatic conditions can cause disease in the gland-structures of the large intestine, it needs no effort of imagination to suppose a similar process may occur in those of the small intestine, or that the disease may pass the ileo-colic valve and appear in the ileum. It is not difficult, either, to imagine that the stress of the morbific agency may fall primarily on the glands of the ileum, and so give rise to the enteric lesions which so closely resemble those of the enteric fever of our own latitudes. I do not assert that it is so, but I would suggest that those who regard the

disease (in India) as always of fæcal origin, should give the subject reconsideration.

In Virchow's fibrinous or diphtheritic form, or in gangrenous dysentery, the changes are more serious. The intestine is intensely congested, the lumen diminished, and the whole tube thickened. The contents consist of a thin reddish fluid, with some fæcal matter. The mucous membrane is reddish or whitish, and is covered with discoloured patches, and the natural appearance of mucous membrane is lost. There is infiltration of fibrous exudation throughout the tissues, which may invade the whole gut, when gangrene and death result. Most cases, however, are probably combinations of the catarrhal and fibrinous, causing ulcer and thickening of the bowel. This causes the irregularly thickened state of the gut; and from such cases sloughs are thrown off and ulcers form. The site and extent of these ulcerations vary. The sigmoid flexure is a common site; the cæcum in certain cases, and the rectum in others, are the principal seats of it. In some severe instances the whole gut is involved; but it may occur at different periods in different parts of the bowel. The condition of chronic dysentery into which these cases often pass is due to these structural changes in the bowel—*i.e.*, to thickening and imperfect cicatrisation of the ulcers, and to the permanently injured state of the glandular structures.

Dysentery is always a subject of anxiety when it occurs during pregnancy. It is very prone to cause miscarriage or abortion, and the progress towards recovery is generally more rapid after the ovum is extruded. It is less amenable to treatment in the early stages in this state, and in either chronic dysentery or ordinary dysentery serious symptoms are more likely to supervene in the pregnant woman than in others.

It also frequently complicates the recovery after delivery, and assumes a very dangerous condition, though happily, even in this form, it is under the control of appropriate treatment.

Intestinal worms—lumbrici, *e.g.*—are a frequent accompaniment of dysentery in Bengal, and their presence must tend to intensify the local irritation and to aggravate the disease.

The treatment of an attack of ordinary acute dysentery is to be conducted on the following plan. The patient should remain in bed or in the recumbent posture; if there be abdominal pain or tenderness on pressure, hot fomentations or turpentine stupes should be sedulously applied. A dose of twenty or thirty grains of ipecacuanha powder, according to age, strength, etc., should be given to an adult at once in water, and the patient should endeavour to resist vomiting as long as possible—though for my part I am inclined to think the emesis does rather good than harm. It may be well to combine ten grains of carbonate of soda with the ipecacuanha, to neutralise acidity. It is recommended by some to give a dose of fifteen or twenty drops of laudanum before the ipecacuanha, and to apply a sinapism to the epigastrium, with the view of diminishing irritability of the stomach and of preventing sickness. He must abstain from all fluids except occasional mouthfuls of iced water or bits of ice to allay thirst, which is often intense. My own plan has generally been to repeat the dose of ipecacuanha in four or six hours—a second or third time, according to the effects; and especially if the first dose have been speedily rejected, as it often is. I have generally found that if this treatment be resorted to early in acute dysentery, it is most effective, and nothing else is needed. The pain diminishes, the tormina and tenesmus are alleviated, the restlessness is abated, the sense of fulness and desire to go to stool passes away, the skin becomes moist, and in all respects a general sense of relief is experienced. The motions become fæculent, and assume a peculiar yellow appearance, significant of the action of the remedy. If any irritability should remain, a dose of ten or fifteen grains of Dover's powder is beneficial; it gives ease, sleep, and aids in the restoration of the natural action of the bowels. Small doses of castor oil—half an ounce or less—are given occasionally, and by some are considered of importance. No doubt, if there be inaction of the bowels after ipecacuanha, or if it be necessary to aid in expelling mucus—for the irregular contraction of tenesmus is not always efficient in this respect—the castor oil is most desirable; or if there be indications of hepatic or portal congestion, sulphate of soda or magnesia would be better.

It is quite possible that there may be a recurrence of the acute symptoms; in which case the ipecacuanha must again be given, though it may now be in smaller doses of ten or fifteen grains—the recumbent posture and the carefully-regulated diet being rigidly observed, with fomentations, and ten grains of Dover's powder at night; or an injection of starch and thirty or forty drops of laudanum.

When the disease has advanced to ulceration, and when the chronic stage has been fully established, the ipecacuanha is no longer useful.

In my next lecture I shall describe the treatment of the subacute and chronic form of dysentery.

CLINICAL LECTURES
ON
SOME POINTS CONNECTED WITH THE TREATMENT OF WOUNDS.

By WILLIAM MACEWEN, M.D.,
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Lecture I.—Ligatures.

Gentlemen,—I beg to draw your attention this morning to some particulars in the immediate treatment of wounds, and to place them before you in a more formal and connected manner than is possible when putting them into practice in the operating theatre, or at the bed-side.

Preliminary Remarks.—In order to place a wound in the condition most favourable for healing, all sources of irritation must be avoided or removed, whether they arise during the performance of an operation, or in the immediate treatment of the wound, whether in the substances employed or in the manner of using them. When a linear incision requires to be made, if it be accomplished by a single clean cut with a keen edged bistoury, it will produce less irritation than if it were made by half a dozen cuts attempted to be placed in the same line; because in the latter the tissues are more injured, the incised area is multiplied, and a ragged instead of a smooth section results. Hence, when an operation can be accomplished by a single incision instead of by half a dozen cuts, the irritation caused in making the wound is reduced to a minimum, and it is thereby rendered less liable to the production of pus. When the wound has been formed, the less it is handled or fingered the better. If its lips require to be drawn aside for any purpose, this ought to be done as gently and as lightly as is consistent with efficiency. Any over-straining or over-stretching ought to be avoided. When the operation is completed, refrain from introducing foreign matter into the wound. If it have been performed under the spray, there is no occasion for drenching an aseptic wound with carbolised preparations; and, above all, consider before using substances such as one to twenty watery solution, or chloride of zinc, forty grains to the ounce. Some cases there are where the use of such strong remedies is imperative, but the great majority of wounds do not require them; and when this obtains, their application does harm and retards the healing. The free use of Volkmann's spoons for cleaning out sinuses, and for the removal of fœtid granulations, lessens the number of cases in which it is necessary to apply strong antiseptic solutions.

Elastic Webbing as a Tourniquet.—The next point is the arrest, or rather the prevention, of hæmorrhage, as in most cases bloodless operations are now performed, and the surgeon endeavours to occlude the open mouths of the blood-vessels prior to the removal of the restraining bandage. In rendering the limb bloodless, the bandage invariably used in my wards is the broad elastic webbing. It serves two purposes: first, to empty the limb of blood, when Lister's method of doing so is not employed; second, to act as a tourniquet. In the latter respect it is much safer than the elastic rod and catch, as with this rod the force is concentrated on a very small space, and is consequently apt to injure the tissues, more especially as the amount of pressure is difficult to regulate. In the broad elastic bandage the pressure is distributed over a considerable area, its amount being adjusted by the cumulative effect of several layers of the bandage, one over the other, so that the desired constriction can be more easily measured.

The Old Ligature.—We then endeavour to close the mouths of the blood-vessels before removing the elastic webbing. The choice of a ligature is important. Formerly threads of various substances, most often of silk, were used as ligatures, their ends being left long and hanging from the wound. The part being exposed to the air, these threads were apt to keep up a communication between the atmosphere and the interior of the wound. As they could only be removed safely after they had set up sufficient irritation to enable them to ulcerate their way through the coats of the artery, there generally was a discharge of pus which rapidly became putrid, and the long ligature established a conduit by which the putrescence penetrated to the very interior of the wound. Few things could be better devised to set up irritation, or better calculated to induce pyæmia. Following in the wake of the ideas which are now prevalent regarding short ligatures, some still use silk, properly carbolised, and cut off the ends of the ligature close to