

tourniquet becomes loosened, indicating the necessity of the ligature being made tighter. This is done every three or four days, by making two or three turns of the screw with a watch-key fixed on a handle. While the process of ulceration is proceeding, a process of granulation is filling up the cavity behind the ligature, and on this account it is not desirable that the ulcerative process should proceed very rapidly, lest the latter should not proceed *pari passu*, and a cavity be left unclosed. When a case has proceeded favourably, it usually happens that it may be reported as cured within one or two, or at most a few days after the complete division of the enclosed parts and consequent falling off of the tourniquet. During the treatment, it is desirable that causes tending to produce inflammation should be avoided, but in many cases the confinement of the patient is unnecessary, and moderate exercise may be used. Should inflammation, however, supervene, much pain is experienced by the greater tension given thereby to the ligature, the obvious remedy for which is the loosening the ligature by reversing the screw of the tourniquet.

[Mr. Luke then relates nine cases in which this method was tried. In the first the ligature was applied on the 6th of March, and came away on the 17th—11 days. In the second the ligature was applied March 25th, and came away April 9th—15 days. It was applied in the third case May 2nd, and came away on the 11th—9 days. The average time that elapsed between its application and its coming away was about a fortnight, and a few days more were generally required before the parts were perfectly healed.]—*Lancet*, Feb. 22, 1845, p. 221.

[Mr. Lomas, of Manchester, gives us his method of using the ligature in fistula in ano, as follows:—]

I employ a fine metallic wire of silver or platinum. Having passed a probe director (one of Sir Benjamin Brodie's) along the fistula and through its internal orifice, its point, being very flexible, is readily directed downward and out at the anus, by the finger previously introduced within the rectum; the structures to be divided are now upon the instrument, and, as it were, everted. The wire is then passed along the groove of the director, and the ends are crushed together until a very moderate compression is exerted upon the enclosed parts. It promotes the personal comfort of the patient to leave the twisted ends rather long, and to fix them on the sacrum with a cross slip of adhesive plaster. This trifling arrangement allows the buttocks to lie perfectly apposed, and he (the patient) is free from the disagreeable sensation of an interposed body or rough point, and visits the closet more comfortably. All that remains to be done is to twist up the ligature as it becomes slack, and in a week, or a little more, it is free. I do not confine the patient altogether; it is, however, advisable to keep him on the sofa for the first twenty-four hours, as erysipelas might arise in a bad subject, and also to limit his movements considerably during the entire treatment.

[He remarks, that he has found no strong reason to prefer it to the knife, and thinks that the plan of presenting the parts for division upon Sir B. Brodie's probe director, and dividing them with a sharp bistoury, is an operation so short, simple, and effectual, as to leave nothing to be desired.

The opinion of Mr. Luke, of the London Hospital is, that the ligature consumes decidedly less time in establishing a cure than the knife.]—*Medical Gazette* March 14, 1845, p. 766.

[Mr. Henry Burton, surgeon, Stoke Newington Road, from personal experience, gives a decided opinion against the ligature. Its application gave much pain in his own person, and caused great irritation; in a fortnight a second ligature was applied, which gave him dreadful torture, so that five days after he was obliged to have it cut out, the local and constitutional irritation became so great. Besides this, the irritation produced fresh suppuration, and two additional sinuses, for which he was operated on in the usual

manner, and he declares that the whole of the pain was not a tithe of what he suffered under the ligature martyrdom.

A medical friend of Mr. Burton's underwent precisely the same ligature treatment, but found it so intolerable that he soon gave it up, thus escaping the aggravation of the disease entailed upon Mr. B. for his perseverance.]—*Lancet*, April 12, 1845, p. 427.

[Mr. Luke, in reply to Mr. Burton, considers that the ligature was not properly applied in Mr. B's case, and from nothing being said regarding the amount of tension subsequently used, we cannot judge whether the practice was such as Mr. Luke recommends.]

Now, in order that the ligature should be properly managed, it is necessary that it should not at any time be drawn so tense as to cause pain, and generally for the first few days should be left without any tension whatever upon it.

[As Mr. Burton speaks of the insertion of a second ligature. Mr. L. thinks it probable that the operator possessed no means of gradually increasing the pressure, and, therefore, that the first ligature was drawn at least moderately tight, which of itself would cause considerable pain, even without the increased tension given to it by the swelling of parts subsequently to its insertion.

Mr. L. also expresses it as his opinion,]

That the slow operation of the ligature may with advantage be made extensively available in practice, beyond its application to fistula in ano merely, as in the obliteration of veins when varicosed, either in the leg or in the spermatic cord; in the removal of tumours, when they are so vascular or so situated as to render the use of the knife dangerous; or in certain cases where the dread of the knife cannot be surmounted; and lastly, in laying open extensive sinuses, where, from their magnitude, the use of the knife would be attended with danger, or where, from the intervention of vessels, there might arise a risk of dangerous hæmorrhage.

In all the above cases, (in varicose veins of the leg excepted) I have availed myself of the slow operation of the ligature, and I think with much advantage to the patients who have experienced its use.—*Lancet*, April 26, 1845, p. 482.

[The following is a description of a new instrument for applying ligature in fistula in ano, by Dr. Nelken:—]

This instrument is composed: 1st of a rod, about 11½ inches in length, the upper third of which is divided into four equal parts, united to each other by hinges, so arranged, that they can be closed only in one direction, the last being furnished with a knot, and a hole to pass the ligature; and 2^d of a tube through which the former is passed when threaded. The finger being placed in the rectum, the apparatus thus prepared is passed upwards into the fistula, until the extremity reaches the finger, the tube is then withdrawn to an extent equal to one of the four divisions of the rod; the whole is next pushed forwards, the finger in the rectum causing the rod to bend downwards as it penetrates into the intestine; the same manœuvre is repeated until the ligature appears at the anus, when the surgeon seizes it, and terminates the operation.—*Medical Times*, Feb. 8, 1845, p. 403.

ON RELAXED RECTUM.

By HENRY HUNT, Esq., M. D.

Dr. H. describes this as a malady of not unfrequent occurrence, and productive of much inconvenience and distress. The most prominent symptoms are, obstinate constipation, a frequent desire to evacuate the bowels, a constant sensation of load in the rectum—which is not relieved by an evacuation—and the discharge, after much forcing, of mucus streaked with blood. The bladder, urethra and the adjacent organs, often participate in the irritation. On examination, the rectum will be found preternaturally enlarged, and more or less filled with large folds of mucous