should be exercised in removing the fragments and seeing that the bladder is left quite clean. Stress is laid on the necessity for careful after-treatment of the bladder and urine in these cases, the writer recommending that the former should be well flushed out at least once a week by the surgeon for some time, with an aspirator catheter and wash-bottle, in addition to the means which the patient himself may be able to employ. The useful properties of silver nitrate in the prevention of phosphatic deposits are referred to, and a striking case is mentioned illustrative of the benefit to be obtained by its use, where a man suffering from prostatic enlargement, for which regular catheterism was necessary, had the misfortune to break off a piece of his instrument in the bladder. His condition did not admit of immediate operation, but nitrate of silver injections were used for ten days, and the piece then removed. It was found to be quite clean, and without a trace of phosphatic concretions. The part played by castration and vasectomy in the treatment of prostatic hypertrophy is mentioned, and the latter operation is advised, as an aid to the prevention of stone recurrence.

DISEASES OF THE RECTUM.

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1. Atony of the rectum.

This subject is discussed by **Acheson**, of Ontario, in the *British Medical Journal* (Oct. 30th, 1897). He considers that atony may be either a cause of chronic constipation, or that the latter may induce the former. When from any cause impaction of fæces occurs in the rectum, the normal nervous sense is deadened, causing prolonged distension of the rectal walls; on the other hand, atony may be caused by one or other of the following—viz. a sedentary life, irregular habits, gaseous distension, due either to fermentation or to the drinking of effervescing waters, the excessive use of enemata, or to pressure from without from some form of pelvic tumour; all these causes of the atonic condition having constipation as a marked symptom.

Other symptoms which point to atony, whether as the cause or the result of constipation, are—a sense of fulness and weight in the pelvis, with tenesmus and the passage of blood-streaked mucus or a thin, watery matter. This state of affairs may induce the following nervous symptoms through absorption of the bowel contents, or in other words by auto-intoxication—viz. headache, migraine and hysteria. Constipation by its mechanical effect may be the cause of uterine displacements or of vesical irritability. The author recommends by way of treatment, if no obvious cause of obstruction can be discerned, a careful attention to the daily action of the bowels. Purgatives are not advised, but the author has found the following tonic pill of service, viz.: ℞. Aloin, gr. $\frac{1}{5}$; Strych. Sulph., gr. $\frac{1}{50}$, Ext. Belladonnæ, gr. $\frac{1}{8}$; Ipecac., gr. $\frac{1}{16}$. The action of this pill may be increased by the use of a small cold-water enema, or for severe cases one or other of these astringent injections may be employed: ℞. Tannin, gr. xxx., Aquæ, iv.; or ℞. Ext. Rhatinæ, gr. cxx.; Sp. Vini Rect., ℥v.; Aquam ad ℥iv. For fæcal impaction some form of operative interference is usually necessary.

It will be seen that the views here set forth coincide in a large measure with those of Bodenhamer, to whose article in the

New York Medical Journal I referred in the issue of the "Year-Book" for 1897.

2. Stricture of the rectum.

Two new operations have recently been advocated for this condition, one by **Sonnenburg**, of Berlin, to which he gives the name of rectotomia externa—*vide* the *Medical Annual* for 1897, and the other by **Bacon**, of Chicago, which he introduces as a substitute for linear proctotomy. (*Vide* Mathew's *Quarterly Journal* for January 3rd, 1897.)

Sonnenburg utilises Kraske's method of exposing the rectum; the whole of the thickened and strictured portion of the gut is then incised in the middle line posteriorly, from without inwards, and the wound, which is plugged, is left to heal by granulation. He says recovery may take weeks or even months, but as the sphincter ani escapes division, the result as far as incontinence goes leaves nothing to be desired. He has so far met with no persistent fistula as a result, though he has operated upon six cases in this way. He advises the regular passage of bougies both during the healing process and subsequently. This operation differs from that of **Péan**, in that the latter, having exposed the rectum in the same manner, sews up the longitudinal incision, but transversely.

Bacon's method aims at preventing the re-contraction which may and often does follow linear proctotomy, by establishing a fistulous track between the stricture and the coccyx prior to the division of the stricture.

The operation is shortly as follows:—A blunt-pointed aneurysm needle armed with a stout silk ligature is introduced through the anus into the rectum, and is made to perforate the gut in the mid-line posteriorly, between the sphincter and the lower margin of the stricture. It is then carried upwards between the stricture and the coccyx, and made to enter the rectum again above the stricture area. The ligature is now seized with a blunt hook or forceps, and one end is drawn down through the lumen of the stricture, and the aneurysm needle is withdrawn, carrying with it the other end. The ligature now completely encircles the stricture. It is now securely though loosely tied and the ends are left long, protruding through the anus. The loop is left slack so as to avoid severing the stricture, as it is important that the ligature or seton should be in place for three months, to obtain a continuous mucous track. After the lapse of this time the ligature is withdrawn, and under an anæsthetic a grooved director is passed through the fistula behind the stricture, and the intervening tissues are divided with a Paquelin's cautery.

3. The operative treatment of hæmorrhoids forms the subject of many communications from America, where, although the balance of opinion seems still to favour the clamp and cautery, incision and ligature, or Salmon's operation, appears to be growing in popularity. Of other methods we hear but little, although Whitehead's operation is still warmly championed by some.

It is now some years since I gave up all other methods in favour of the ligature.

Swinford Edwards, in commenting on a paper advocating the clamp and cautery (*vide* "Treatment," April 14, 1898), makes these remarks, which, as they agree with my own views, I will take the liberty of quoting:—

"The author states that this operation (Salmon's) is less radical than that of the clamp and cautery. Here I differ from him. They are, or should be, both radical in their cure; but if there is anything to choose in this respect between the two methods I think the balance is in favour of Salmon's operation, for the application of the clamp is not, and cannot be, as exact as that of the ligature. Indeed, where the piles are numerous, it is very difficult to remove per clamp and cautery all one wishes without overdoing it, thus running the risk of subsequent contraction. As to the second objection, viz. that it involves a greater loss of blood, this appears to me a trivial point, for the amount lost in Salmon's operation is small, usually not more than a teaspoonful or two, and this slight loss is often salutary in effect. That it takes longer to perform I very much doubt; in fact, my experience teaches me the reverse. For if Smith's operation is at all hurried over, bleeding is more than likely to occur, necessitating the application of ligature, which this operation is planned to obviate. As to post-operative pain, there is a good deal of difference of opinion. I have known no pain at all complained of after the ligature, and on the other hand have met with it after the cautery. Indeed, I have known two patients, who having been in years gone by operated upon with the clamp and cautery, were, on account of a recurrence of their trouble, submitted to Salmon's operation, who both affirmed that they suffered less pain after the second than they did after the first operation.

"In most cases of internal hæmorrhoids external piles or tags of skin are met with which require removal. Surely less pain is likely to follow excision of these than is their removal by burning; and, moreover, there is less chance of anal contraction following.

"Of course the author (**S. Parker Syms**) has limited his paper to

uncomplicated hæmorrhoids; but we often have to deal with an accompanying fissure or fistula, in which case there would be no object in operating with clamp and cautery, seeing that both incisions and probably ligatures would have to be employed in the operation for the cure of the complication.

"I believe that in general the ligature operation is the better, certainly in complicated cases, and where the piles are numerous; also in those cases where the surgeon lives at some distance from his patient, for recurrent hæmorrhage is more common after the clamp operation than after the operation by ligature."

4. The treatment of pruritus ani.

Brocq, in the *Journ. de Méd. et de Chir.*, 1897, advises the frequent ablution of the part, especially where much excoriation exists, with a lotion of camomile, boric acid and saponified coal-tar, after which an ointment of vaseline and oxide of zinc is applied. When all irritation is removed the parts should be dusted with this powder—Camphor 2 grms., oxide of zinc 30 grms., subnitrate of bismuth 30 grms., talc 40 grms. After the use of this powder for a few days, a weak solution of argent. nit. may be painted on and a suppository of cocaine and belladonna may be inserted by night. **Edwards**, writing of anal irritation in "Treatment," vol. i., p. 147, recommends, in severe and long-standing cases, forcible dilatation of the anus under an anæsthetic, combined with a thorough scraping of the diseased skin with a sharp spoon and the removal of all tags or hypertrophied folds of skin. Finely powdered iodoform is then freely rubbed into the abraded surface.

5. The treatment of rectal carcinoma.

Judging from the many able papers which have appeared during 1898 on this subject, those who advocate excision, as opposed to those who rest content with colotomy, are certainly on the increase. Only one paper that I am aware of has advocated colotomy whilst throwing cold water on rectal excision. I refer to a paper by **Wm. Rose** in the *Practitioner* for July, 1897. He bases his unfavourable opinion of excision, whether by the old perineal route or by the sacro-coccygeal method, partly on statistics of Kocher and König, and also on those collected by Watson Cheyne for his Lettsomian lectures in 1896, and partly on his own experience.

Rose says "that complete extirpation of a malignant growth in this region is always a matter of uncertainty," though he admits that by Kraske's method a more thorough removal may be obtained. Since the statistics on which Rose partly bases his opinion were drawn up, the more recent ones are much more favourable to excision, for Ball in his paper on trans-sacral

resection of the rectum at the meeting of the British Medical Association at Montreal, stated that he had in seventeen cases, only lost one. **Kraske** (Nos. 183 and 184 of the *Sammlung klinische Vorträge*) during the past seven years gives fifty-one cases and only five deaths, being a mortality of 9·8 per cent.

Czerny, in the *Berliner klinische Wochenschrift* for Sept. 6th, 1897, says that since performing Kraske's operation he has had sixty-six cases and nine deaths, making a mortality of over 13 per cent., and **Swinford Edwards** reports fourteen cases with two deaths, being a mortality of a little over 14 per cent. (*Brit. Med. Journ.*, May 15th, 1897.) Concerning the question of recurrence, Czerny believes that from 20 to 25 per cent. of these radical operations remain free from recurrence for about two years, and of these the larger portion are permanently cured.

In inoperable cases, *i.e.* where the disease has extended beyond the walls of the rectum, and contracted adhesions to neighbouring structures, and where the glands and lymphatics are obviously involved, I agree with Rose that an early colotomy is to be recommended. He says "a colotomy has generally been looked upon as a *dernier ressort*, only to be had recourse to at as late a date as possible, and consequently it was undertaken under the most unfavourable conditions."

Again, "where the disease cannot be eradicated, the surgeon must do his utmost to prolong life and to render existence more tolerable, and that this end can best be obtained by an early inguinal colotomy there is no doubt."

Belin (*Progrès Médical*, Oct. 2nd, 1897) advocates a special method of performing colotomy, as a supplement to trans-sacral rectal extirpation, as performed by Reverdin. This surgeon, after exposing the sigmoid in the usual manner, draws the bowel well out of the wound, and encircles the lower part near the inner angle of the wound with a ligature; still lower down the bowel is clamped. It is then cut across between the ligature and the forceps. The proximal end is dissected up from its mesentery and fixed in the upper or outer angle of the wound some inches from its orifice by a series of sutures. Its ligatured orifice is then opened, and a special glass tube is inserted and fixed within the gut by a ligature. A piece of rubber tubing is attached to this for conducting the contents of the bowels to a receptacle placed under the bed. The last step of the operation is to return the distal segment, after having carefully closed it with sutures. After the lapse of a week the portion of bowel which protrudes is removed by the thermo-cautery.