From ulceration or the absence of pressure, or some such cause, the stricture, after the operation, became permeable, and during the last few weeks of her life allowed fæces to pass readily. The free attachment of the great bowel explained how it was that the dulness on percussion, which is usually present above a stricture, could not be detected, the intestine not being in close contact with the abdominal wall.

Obstructions of the bowel are so often obscure that any aid to the diagnosis of their position, or any expedient which will help us in treating them, deserves careful trial. In the aspirator we have an instrument which will determine whether any given portion of the ascending or descending colon contains liquid or not. If it does, it is of necessity above the seat of stricture. The puncture involves no risk. I once saw a post-mortem examination on a case in which the aspirator needle had been pushed into various portions of the bowel within six hours of death, and yet all traces of its use had disappeared. When the presence of liquid fæces in a portion of the colon is ascertained, we know that opening the bowel there will relieve the urgent condition. In the above case the needle was of great service as a guide to the bowel (there is not usually any difficulty in exposing it; but this patient was so fat that the wound was a very deep one, and the intestine was covered by a layer of fat). The class of case in which aspiration is most likely to be useful is: when no stricture or fæcal accumulation can be felt per anum; when there is no decided evidence by percussion dulness of a large accumulation in either ascending or descending colon and yet the symptoms point to stoppage of the great bowel, not the small one. I should certainly trust to it to guide me whether to perform colotomy or, on the other hand, to do abdominal section, with the object of removing the obstruction, or opening the lower end of the small bowel.

I have mentioned that I used an enterotomy tube for preventing a prolapse of the bowel. This is a contrivance which I had formerly found of much use in cases of colotomy; it prevents prolapse of the bowel, keeps the opening from closing, and can be made so as to a great extent to prevent contact of fæces with the wound and skin. It consists of a piece of large-sized drainage tubing fastened at right angles to a plate of perforated zinc. The tube is passed into the bowel, the zinc lies on the skin, and is kept there by a band of tape going round the body. The tape is fastened to the zinc plate by india-rubber rings, so as to keep it tense. If it is desired to protect the skin, the tube is passed into the wound through a sheet of gutta-percha tissue. It has a considerable general resemblance to a tracheotomy tube.

Carlisle.

CASCA BARK *VERSUS* DIGITALIS.

By DAVID DRUMMOND, M.A., M.D.,
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IN the Gulstonian Lectures of 1877 Dr. Lauder Brunton pointed out the close resemblance which existed between the cortex erythrophloei and digitalis in their physiological action. To use Dr. Brunton's words, the action of casca is to strengthen and slow the heart, to contract the arterioles, and increase the urine. For the past two years I have used the tinctura erythrophloei (as it is proposed to style the drug) in a good many cases, a few of which I shall shortly cite with the view of comparing the therapeutical value of the two drugs, especially as regards the certainty and rapidity of their action. The tincture of casca I procured from Messrs. Brady and Martin, of Newcastle, who recommend the dose of five to ten minims, founded on Dr. Lauder Brunton's observations. I believe the strength of the tincture is 1 in 10.

Ellen H— was one of the earliest of my cases in which the drug was tried. Into the details of her malady, or that of the cases to follow, it is unnecessary to enter. Aged eighteen, she had suffered from rheumatism, which left her with a constricted mitral orifice, as evidenced by presystolic murmur, thrill, &c. On the 26th of April, 1879, whilst the heart was beating at the rate of 90 per minute, five-minim doses of the tincture were ordered three times daily. The first evidence of its action occurred in the shape of an attack of epistaxis—i.e., increased arterial tension. On April 30th

the pulse was 88. There being no return of the epistaxis, the dose was increased to eight minims. On May 1st the pulse was 80. On May 2nd ten minims of casca was given, which dose was continued up to the 21st, during which time the pulse remained at about 70. Then it was observed that the patient passed a great deal of urine. The effects of the drug were allowed to pass off, and on June 9th fifteen minims of tincture of digitalis were given thrice daily, the effect of which was to lower the pulse ten beats per minute in about a day. The patient was soon after discharged, the pulse remaining at from ten to fifteen beats below the average until she left.

Alice G—, aged twenty, suffering from mitral insufficiency. Her average pulse was about 100. On April 20th five-drop doses of the tincture were administered, which were gradually increased to fifteen minims three times daily; but owing to an attack of hæmoptysis on April 23rd the casca was stopped, at which time the pulse was at 90. On the 30th, the pulse still remaining about 90 to 95, eight-drop doses of the tincture were given, and continued until May 19th, during which time the pulse scarcely varied at all, but remained about 90, the only noticeable effect of the drug being a diminution in the quantity of urine passed. Dr. Brunton has shown that one of the toxic effects of the drug is to diminish the renal secretion; however, in spite of the small quantity of water passed, the dose was increased to fifteen minims thrice daily; but on the 21st, the flow becoming less, the exhibition of the casca was stopped. The pulse during this time had increased rather than diminished in frequency. It was found that it was only necessary to omit the casca for two days to allow the flow of urine to become normal again. On May 24th fifteen drops were again given three times in the day, and continued till the 31st; but the drug appeared to have lost its effect, for on that day the pulse was at 120 per minute. The tincture of digitalis was substituted, in ten-drop doses. On June 4th the pulse was down to 100, when the digitalis was increased to fifteen drops. On the 9th the pulse was at 50; in consequence the digitalis was stopped, and in a few days the pulse again became rapid—i.e., 100; but now the digitalis had lost its influence, for fifteen- and twenty-drop doses thrice daily failed to bring down the number of beats.

In the next case the drug was pushed much more energetically.

Wm. W—, aged fifty-four, presented unmistakable symptoms of mitral stenosis. Although there was no murmur, yet the rapid, irregular heart, the cyanosed face, the congested lungs, with hæmoptysis and dyspnoea, told a tale of obstruction on the left side of the heart. On the 14th of July, 1879, the heart—counted with the stethoscope, as many of the beats did not reach the wrist—was at 160 per minute, irregular and intermittent. Ten-drop doses of the tincture of casca were given three times a day. On the 17th, the pulse was much steadier, and reduced to 100. All the beats seemingly reached the radial. The quantity of water passed was much increased. The administration of the drug was continued, and larger doses employed, the increase being gradual. On Aug. 1st, thirty drops three times a day were given, and in a few days the dose was increased to thirty-five drops. On the 11th, a week after the maximum dose named had been employed, the pulse was at 110, and very irregular. The drug was then discontinued, the urine being diminished in quantity. On Aug. 16th—no medicine was given in the interval—the heart was beating at the rate of 152 in the minute, 120 of which only reached the radial. Digitalis was then exhibited—twenty drops of the tincture three times a day—the immediate effect of which was to steady the cardiac pulsations, and to render them both slower and more regular; for, on the 18th of the same month, the heart beats were 120, all of which reached the wrist. The digitalis was continued until Sept. 16th, 1879, on which day the patient left the hospital, his pulse much more regular, and at 80 in the minute.

This patient came again under treatment in the hospital on May 25th of the present year, at which time his pulse was at 150, and very irregular. He was ordered ten-drop doses of the casca administered as before, which was increased on June 4th to twenty drops, the pulse remaining unaltered. On the 12th the pulse was steadier, and reduced to 120 in the minute. Then camphor-water was substituted and continued for eight days, during which period the pulse rose again to about 150, and became more irregular, being with difficulty counted. On June 20th the camphor-water was discontinued, and in place twenty-drop doses of the

tincture of digitalis were employed—a larger quantity invariably caused vomiting. On the 28th the pulse was again reduced to 120, but a continuance of the remedy failed to bring about a further reduction.

I have used the drug in several other cases besides those briefly recorded above, but as the trials simply served to strengthen my previously formed impression as regards the therapeutical value of the tincture of casca, no object can be gained by citing them. To sum up my limited experience of the remedy:—It is undoubtedly a very useful addition to our somewhat restricted list of therapeutic agents in the treatment of cardiac cases, serving, like digitalis, to lower the pulse-rate, and, whilst increasing the force of the systole, to render the heart more regular. In comparing the two drugs, whilst recognising the value of casca, I think digitalis is the more reliable remedy of the two; it seems to act more rapidly and with more certainty. It may, however, yet be found that the cases in which each drug is to be employed must be selected; some cases requiring perhaps stimulation of the cardio-inhibitory centre in the medulla—casca,—whilst others may be best suited by a remedy which acts on the peripheral inhibitory apparatus in the heart—digitalis.

In my cases it did not appear that the remedy was cumulative, for in the case of Alice G—the quantity of urine, which had been very much diminished by the drug, became normal a day or two after its discontinuance. The drug appeared to me to act in the desired manner upon the heart only so long as the quantity of urine was increased.

Sphygmographic tracings in the cases given showed well the high arterial tension as the result of the drug; this was especially noticeable in the first and third of the cases. In Alice G's case the tracing, taken whilst the drug was being administered, but without effect, the pulse being increased in rate, showed a low-tension pulse. In a case of thoracic aneurism in which the drug was tried, the effect was an increase in the pain, the result of increased arterial tension.

Newcastle-upon-Tyne.

FIVE YEARS' SURGICAL WORK IN THE
CARDIFF INFIRMARY.

BY ALFRED SHEEN, M.D.,
SURGEON TO THE INFIRMARY.
(Continued from p. 691.)

OPERATIONS for the removal of cancerous growths do not leave a very favourable impression on one's mind. Whatever their immediate results may be, and in some cases I believe these results to be highly beneficial in a variety of ways, the disease, as a rule, either returns at the seat of operation or in some other part, and the patient eventually succumbs to it. One or two cases may be deemed worthy of a more extended record.

S. P.—, aged forty-four (Nos. 36 and 37) was admitted in December, 1877, with an enormous sarcomatous tumour in the posterior aspect of the right thigh, extending from the top of the femur nearly to the popliteal space. It was removed under antiseptic precautions. The temperature varied from 99° to 101° for eleven days, after which it became and remained normal. She was again admitted in February, 1879, when another tumour, the size of a small orange, was removed antiseptically, from the upper part of the thigh, and the pulse and temperature were normal throughout. Again, during this year, I have dissected out three nodules, each the size of a small hen's egg.

In the case of T. B.— (No. 41) I had previously twice operated for epithelioma of the lip, after which there was no return of the disease at its original seat, but glandular enlargement supervened at the angle of the jaw, and, unfortunately, he did not seek advice (although cautioned to do so) until it had attained such a size as to render his chances of benefit from further operative interference exceedingly problematical. He was, however, very anxious to have something done, and I removed it partly by the knife and partly by tearing with my fingers. There was considerable venous hæmorrhage. After its removal a large gap was left showing the digastric muscle, the hypoglossal nerve and

other structures as they would appear after an elaborate and careful dissection.¹ The man after his discharge had a severe attack of erysipelas of the face, from which he recovered, but he died twelve months after the operation of an extension of the disease.²

Of the cases of epithelioma of the penis one was removed by the galvanic cautery, but I was so unfavourably impressed with it that I did not use it again. A clean cut with a knife is far preferable to the eschar produced by the cautery and its subsequent tedious separation.

Of the eye cases, two cases of senile cataract were dealt with successfully by the flap operation, whilst a third, treated by iridectomy and the modified linear incision, was a failure from escape of vitreous and intraocular hæmorrhage. Abscission of the cornea, for a very prominent staphyloma, left a not unsightly stump, upon which a glass eye may at some future time be fixed.

During the removal of a scirrhus of the breast in a woman aged sixty-four, the patient twice became pulseless, but recovered on tilting her up, head downwards.

In the case of popliteal aneurism the femoral was tied in the usual situation with carbolised catgut, and the wound closed with styptic. No chloroform was given.³

BONE.					
	Under ten.	Under twenty.	Under forty.	Under sixty.	Totals.
Lower jaw	0	0	2	0	2
Face	1	0	0	0	1
Hand	0	1	1	0	2
Elbow	0	1	0	0	1
Humerus.....	0	1	0	0	1
Femur	0	5	1	0	6
Tibia	1	0	1	1	3
Tibia and fibula	0	1	0	0	1
Periostitis: Tibia	1	1	2	0	4
Foot.....	0	3	1	0	4
	3	13	8	1	25

In this division there were eighteen males and seven females; no deaths. In these cases, where operations have been performed, Esmarch's bandage has always been used, and with great advantage, making the operation as plain as though it had been performed on the dead body. The chisel and hammer have also been resorted to in place of the usual bone instruments, in cutting through new bone and in dividing large pieces of necrosed bone, and in some cases I greatly prefer this method of proceeding. Lint steeped in carbolised oil (1 to 10), stuffed into the wound, has been the usual mode of dressing for some days, and in some cases I have used terebene in place of the carbolised oil with advantage. It has answered as well, or better, and certainly has a more agreeable odour. I think we may be, at times, too hasty in interfering with diseased bone, especially in the hand and foot, for I have cases under my observation which go to prove that, by patience, the use of the stiff bandage and long-continued expectant treatment we may sometimes fairly assume that such cases will recover without operative interference. I had one such case in 1878 of disease of the bones of the foot, and that patient, under the treatment I have here indicated, is now nearly well.

JOINT.					
	Under ten.	Under twenty.	Under forty.	Under sixty.	Totals.
Hip	4	7	3	0	14
Knee	8	8	6	2	24
Ankle	0	2	1	1	4
Hip and knee.....	0	0	1	0	1
Synovitis: Knee	0	2	1	0	3
„ Ankle.....	0	1	0	0	1
Wrist	0	1	0	0	1
Metacarpo-phalangeal	0	0	1	0	1
Sacro-iliac	0	0	0	1	1
Hysterical knee.....	0	1	0	0	1
	12	22	13	4	51

The cases of joint diseases were equally divided between males and females. As one would expect, the majority of the cases were of the hip and knee, diseases of other joints

1 An almost exactly similar case, under the care of Mr. Durham, at Guy's, is recorded in the Guy's Hospital Gazette, vol. vii., p. 189.
2 Reported in THE LANCET, vol. i., 1876, p. 601.
3 This case is reported in THE LANCET, vol. ii., 1876, p. 222.