

sponge; used the syringe and cold water; no bleeding. Was summoned to her upon the fourth day for very smart hemorrhage, and found a second ovum in the os uteri, but its bag was broken, the placenta remaining; the bleeding continued for a full week, during which the vagina had to be kept plugged.

CASE XIX.—Mrs. C——, aged 40, the mother of a grown-up family; was seized with violent bleeding from the uterus, some hours before I saw her; asserts positively she is not *en-famille*, though the uterus is as large as at the ninth month; the os uteri is open, the size of a sixpence, but hard and irritable under the finger; felt some soft, loose matter beyond the os uteri, which, upon removal, proved to be a mass of hydatids; used the cold injection; the hemorrhage ceased when I placed a plug in the uterus; continued to syringe daily for three days, at the end of which time she passed, with some uterine action, a *pot de chambre* full of hydatids, after which the uterus continued to bleed for a couple of hours, but was finally controlled by constant washings with cold water.

ART. IX.—*Observations on Nasal Polypi.* By WILLIAM COLLES, F. R. C. S., Surgeon to Steevens' Hospital, &c.

It is not my present intention to enter into a systematic description of the various forms of polypi, which are sufficiently known and described by authors, but merely to make some remarks on that form which is more generally met with in practice, and to point out, I hope, some improvements in its treatment.

Polypi are in general observed to occur at the middle period of life; however, no age or sex is exempt from the disease. I have seen it in a child of eight or nine years of age, and again I have known it to commence in a man of seventy. I have remarked it also in two persons in the same family.

Polypi are said to arise from the spongy bones; this, as a

general rule, may be true; but I have seen them grow from the septum and floor of the nose; and as it is a diseased state of the membrane, and not of the bones, that gives rise to them, we may expect to find them arising from all parts of the cavity. One great fault to be found with authors who have written on the subject is, that they do not sufficiently impress on the young surgeon the great probability there is that the disease will return, and that though he may have removed every particle of the growth by operation, yet in a space of time varying from two or three months to as many years, the patient will return with the nostril as full of polypi as ever; and not having been informed of the probability of a relapse, he will be inclined to attribute the unexpected recurrence of the disease to unsuccessfulness on the part of the operator, and to infer that he had not removed the entire of the diseased growth. The morbid condition of the membranes which gives rise to this growth may exist for a considerable time, and then cease, without any assignable cause.

I have known a girl who had both nostrils filled with soft gelatinous polypi, resembling a bunch of small grapes; they had distended the bones of the nose, always breaking in the forceps, and requiring a tedious operation for their removal. Yet in two or three months she would return with the nose as full as before. She at length got married, became pregnant, and the disease ceased to annoy her.

I have tried various topical applications after the removal of polypi: washes of various ingredients, and also powders to be snuffed up the nose, but I cannot say that I have seen any decided benefit from their use.

We should impress the patient, also, with the necessity of his having these growths removed before they fill up the nostril, and make pressure on the bones. Indeed it is only necessary to read the description of a patient given by Levret, and translated by Mr. John Bell into his work on this subject, to perceive what deformities even the most mild form of the disease

may produce, and how, if neglected, it may lead to a fatal termination^(a).

These tumours are now in general removed by means of the forceps. We seize them as near the root as possible, and by drawing them out, and at the same time twisting the forceps, tear through their attachment. The use of the forceps is, however, liable to several objections: 1, Though we see the polypus plainly, yet when we introduce the forceps, the blades of the instrument and the surgeon's hand obstruct the view; 2, The opening the blades of the forceps is attended with pain, from the pressure on the sides of the nose, and often causes laceration of the mucous membrane; and, 3, If the nose be at all distended, so that the internal part is much larger than the orifice, we cannot open the forceps sufficiently to get one blade on each side of the polypus; we are therefore compelled to seize the polypus at its larger, or bulbous end, and are able to remove only portions of the tumour at each time; hence the operation is tedious and painful, and often attended with considerable hæmorrhage.

For the last two or three years I have been in the habit of employing, in this operation, an instrument which is free from many of the objections to the forceps, and which I first saw with Mr. Cusack, but was, I believe, originally described by

(a) A young man died at La Chartre three years after having had the small pox, from which period he had been affected with polypi in the nose. He had seven polypi in all: his face was shockingly deformed; he had a great bulging in the root of the nose; his eyes were removed from each other, by the swelling, to three times their natural distance, and seemed bursting from their sockets; the nostrils were expanded, and the nose flattened and extended, while the cheek bones were raised to the level of the nose; the head and face swelled to an enormous size; the ears were obstructed on either side; the tears flowed over the excoriated cheek, and sometimes pus burst forth from the fistulæ lachrymales on either side; his palate was so depressed that it lay on his tongue, and bulged so that the lower jaw was depressed; the mouth was kept perpetually gaping, so that the saliva dribbled constantly from the jaws; while the nostrils were distended by the bulbous extremities of two large polypi, &c. &c.

Dr. Robertson, of Kelso, in the *Edinburgh Medical and Surgical Journal*, for 1803(*a*). It resembles, on a larger scale, the snare for the removal of polypi of the ear, of which a drawing and description was given in a previous number of this *Journal* by Mr. Wilde. We open the wire at the end of the instrument, introduce the noose beneath the polypus, and endeavour to get it as near the attachment as possible; when in this position, by drawing down the handle of the instrument the wire is tightened round the root, and a very slight force, with some rotatory motion, will suffice to remove the entire polypus.

There is another point in the treatment of polypi on which sufficient stress has not been laid by authors: which is, that we should not always be anxious to remove the entire disease at one sitting. If the polypi are numerous and soft, we can readily remove the anterior ones; but the posterior polypi have been pushed up and compressed, so as to be with difficulty seen and seized; also, if there is any bleeding, the blood will flow and coagulate over those situated farther back, so that we fail to catch them with certainty. Whereas, if we defer their removal for a day or two, being no longer compressed, they fall forward, become distended, and are very easily snared.

There is another situation in which polypi are found, and from whence their removal is attended with much more difficulty; that is, when they project backwards, growing from the posterior nares, and extend behind the soft palate, occupying the upper part of the pharynx. I have seen cases in which polypi, in this situation, differed in no respect from those growing in the nostril, being numerous, soft, and very brittle, increasing more in number than in size, and presenting only a small portion of their extremity beyond the palate. In general, however, a polypus in the sac of the pharynx is a single tumour,

(*a*) For an account of this instrument see Mr. Wilde's original paper on *Otorrhœa* in the former Series of this *Journal*, (No. 72, for January, 1844). Mr. Wilde has also employed his slight instrument successfully for some time past for the removal of gelatinous nasal polypi.

of a much more solid consistence than those which grow in the nose, being sometimes of even a cartilaginous hardness. When small, the polypus often escapes detection. The patient is tormented with all the symptoms of obstruction of the nose, and frequent attempts may be made to seek for such, and even, perhaps, to remove some natural projection. The tumour, at first, cannot be exposed to view; it is only by the touch that the surgeon can be aware of its existence; hence we would recommend the surgeon in all cases, but especially where the symptoms of the disease have existed any length of time, to pass the finger from the mouth behind the soft palate, to satisfy himself of the presence or absence of obstruction in this region. If neglected, this polypus will grow to an enormous size; it will push forward the soft palate, depressing the bones of the hard palate, so as to occupy the cavity of the mouth; it will press on the tongue, impeding deglutition, especially of solids; it will obstruct the voice and hearing, and even prevent the closing of the mouth. The patient, when asleep, will snore so loudly as to be audible to a considerable distance, and he will often start from his uneasy slumber as if suffocating.

On consulting the works of authors on the removal of these polypi, we would expect to find it easily effected, differing little from the operation on nasal polypi; but when we come to operate we are surprised to find the case far different,—that their extraction is attended with many difficulties, and that we may fail several times before we at length succeed in removing them. Some of the older authors seem to have been aware of the difficulties, and they mention cases in which they were obliged to resort to the questionable proceeding of slitting up the nose, and dividing the soft palate to enable them to get at the tumour. We are told they may be removed either by the forceps or ligature, and some have given descriptions of instruments for tying these polypi. These latter are, however, liable to the objection that they must remain in the patient's mouth till the tumour separates; during this time he is unable to close his jaws, as the

slightest movement of the instrument is attended with pain, and its constant pressure has caused ulceration of the soft palate.

When polypi, in this situation, are small, numerous, and soft, their removal may be attempted by means of a forceps, and we are directed to use one resembling the nasal forceps, with the blades bent at right angles. They are liable to the objection that, on opening them, we have to oppose the spasmodic action of the isthmus faucium, induced by the presence of the instrument; hence we cannot make many such efforts in this situation; and on closing the blades the uvula will be almost always forced between them, thus injured, and perhaps torn away; besides, from the shape of the forceps, we cannot twist off the tumour, we can only pull it, and, perhaps, break it; and even here we sometimes fail, as much of the force exerted on the handles of the instrument is lost at the angles; therefore, in this description of polypus, I would recommend the use of a curved forceps, the blades of which open, one in front, the other behind; this form of instrument would obviate some of the objections mentioned.

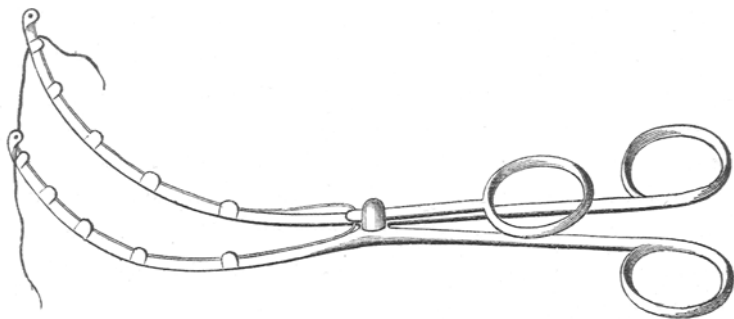
When the tumour is single, firm, and of any size, we should prefer removing it by means of the ligature: in the performance of this operation we will find little assistance from the descriptions of authors. Mr. John Bell seems almost the only one who appears to have studied and effectually treated this form of polypus. He indeed says the operation may be performed with much facility and certainty, yet when, further on, we come to read of the separate steps, we would be led to form a different opinion. He says: "I find not the slightest difficulty in this case in passing a silver wire through the nostril, and with the points of the fingers (thrust deep into the throat) raising it over the bulbous and more depending part of the tumour." He afterwards says: "But though harmless, the efforts necessary for noosing the polypus makes it a moment of great agitation and anxiety to the surgeon; his patient strains and suffocates during the attempt, however long it lasts; breathing is sus-

pended, the eyes are filled with water; the blood gushes from the mouth and nostrils, the fingers, or rather the hand, of the operator is driven deep into the throat, and the patient is held, staring and struggling, at once terrified for suffocation, excited to vomit, and alarmed and pained by the pushing of the operator, who is obliged to push his fingers deep before he even feels the tumour behind the palate, who grapples hard before he gets the lower part of it within the grasp of his fingers, and pushes still more violently, and struggles much, before he can pass the loop of the wire beyond and over it. You dare not keep him a moment in this situation: if the operator be once foiled, he may be so fifty times." He then relates a case in which he saw another endeavour to perform the operation: "More desperate struggles, I confess, I never witnessed; and when, after twenty attempts, I perceived it impossible he could succeed, I found it as difficult to disengage him from the patient as a mastiff from his hold, and seemed furiously resolved not to be defeated before a whole theatre of students."

The great difficulty of passing the ligature round this polypus arises from these facts:—the tumour grows from some part above the floor of the nose, and hangs down behind the soft palate; a ligature, therefore, passed along the nostril, and brought out at the mouth, will lie on these parts, and will be in front of the tumour. To pass it round the polypus, therefore, the noose must be passed from the mouth below, and then behind the polypus, and so expanded as to pass also on each side; but we find that there is a spasmodic action of the parts forming the opening between the mouth and pharynx, which is induced by the presence of the ligature or of the surgeon's finger; so that, no matter of what consistence the ligature is, or what shape we give the noose when in the mouth, when passing this part it will be closed, and thus remain in front of the polypus, and the difficulty will be increased in proportion to the size of the tumour.

In order to obviate, in some respects, these difficulties, and

to facilitate the operation, I have (with the assistance of Mr. Read, the cutler, of Parliament-street), and after various modifications, constructed the instrument here figured.



It resembles a curved forceps, so joined, that, on closing the handles, the blades separate; across the end of each blade a semi-circular notch is formed, sufficiently large to allow the ligature to move easily; this notch may be closed by means of a wire running in front of each blade, which can be passed across the notch by means of a ring moving at the hinge of the instrument.

In performing the operation the selection of a ligature is a matter of some importance: a metallic one is liable to snap across on being tightened or twisted, and a cat-gut one, on being moistened, becomes too pliable and apt to twist, therefore, as neither will answer singly, I generally make use of one of thin silver wire and cat-gut twisted together; this gives a firm, consistent, and strong ligature. This ligature is readily passed through the nose and brought into the mouth without the intervention of any other instrument. We double the ligature, give it a slight curve, and pass it along the floor of the nose; the patient will soon be aware of its presence in the throat, where it will produce cough, and some convulsive efforts; on opening the mouth we readily see it, and by means of the finger, forceps, or blunt hook, we can bring it forward into the mouth, when we apply the supplementary ligature to draw it back if necessary: We then open the apertures in the ends of the forceps, the blades being closed, put the ligature into the

open notch in the instrument, where we secure it by pushing up the wires. If the tumour be large and visible, it will assist the operation to pass a hook or forceps through the noose of the ligature, and seize the tumour, and draw it forwards and downwards; we thus render the tumour fixed, make room for the free motions of the instrument behind it, and allow the ligature to run smoothly over its sides; then, with the hook in the left hand, the surgeon passes with the right the closed forceps, armed with the ligature beneath and behind the polypus, and, depressing the handle, carries the ends of the instrument so as to be on a level with the insertions of the tumour; he then closes the handles, by which he opens the blades, and spreads out the noose of the ligature, when an assistant, gently pulling the ends hanging from the nose, causes it to glide along the sides of the tumour. By drawing back the wires, by means of the ring in the instrument, the ligature, thus set free, is left encircling the insertion of the tumour, and the instrument can be removed. It now remains but to fix the ligature, and tighten it so as to cause the death of the tumour; this is generally effected by means of the double canula, or, what I prefer, that of Græfe, where the ligature is fastened to a button, moveable along the canula by means of a screw, for with it we can tighten the ligature without twisting it or the canula, which latter proceeding is always attended with considerable pain to the patient.

Having thus effectually applied the ligature, and insured the subsequent separation of the tumour, there remains one important proceeding before concluding the operation; that is, to pass a ligature through some portion of the tumour, and leave it hanging from the mouth; for it has happened that without this precaution the tumour has separated while the patient was asleep, fallen into the pharynx, and, if small, has been swallowed, or, if large, has almost suffocated him.

With this instrument, or some modification of it, I have operated in four cases: in one the tumour was as large as an orange, and there was not room for the finger to get behind it,

even if the finger were long enough; in two others, one the size of a walnut, the other somewhat larger, it also proceeded most satisfactorily; in one small one I only snared half of the tumour, and I could not afterwards pass a ligature on the remaining portion of it, it was so small. This is the only case where the operation did not succeed perfectly.

The foregoing remarks refer to one form of polypus, of which there are different species;—it is that which is denominated the benign or non-malignant polypus, which, small at first, may increase without undergoing any alteration in its character so as to cause the death of the patient; it destroys solely by secondary effects, such as pressure on the brain, or some vital part. But besides this, I have no hesitation in saying that there is another form, a malignant polypus, which is malignant from its very commencement, and will most certainly end in the death of the patient, for its course cannot be arrested. Palliative treatment may render its progress slower, but severer measures will only hasten its fatal termination; it destroys not from its bulk, but from a malignancy inherent in its nature, which acts as a poison on the constitution. Of this description I have already seen three well-marked cases. I would not have made any remark on this form of polypus, but that Mr. John Bell, in his otherwise excellent work on this subject, denies the existence of it. He says a benign polypus may so increase as to destroy life, and hence may be termed malignant, and he uses much plausible reasoning in his endeavour to establish this as the only form of polypus, whereby he might lead an inexperienced surgeon to adopt the very erroneous notion, that in every case of polypus he may, with impunity at least, if not with benefit, resort to a severe operation for the removal of the tumour.