TONSILLECTOMY BY GUILLOTINE AND DISSECTION

BY

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Controversy regarding the best method of enucleating tonsils is ever with us. Even now there are a great many relevant points that are not appreciated by the majority of doctors and some specialists. As one who has had to perform some 15,000 of these operations by both methods, I feel that analysis of this controversy may be of interest.

Taking the guillotine operation, let us inquire why such a lot of bad work is done by this method and why it has got a bad name in many quarters. The modern "reverse" technique was introduced in 1910 by Whillis and Pybus of Newcastle. They described their results in 200 cases in the *Lancet*. Very little notice was taken of their work in this country, but in America the idea was adopted by Sluder, who with the proficiency of practice brought his skill in the method to a very high level. In fact, he claimed that his results showed 99.6% of complete enucleation in children. His advocacy of the method brought back to this country its use by surgeons who appreciated the improved technique and who had opportunities of gaining skill by practice.

Reasons for Poor Results with the Guillotine

It may be asked why the results achieved by the guillotine are so variable. Restricting the discussion for the moment to children, let us inquire why some doctors firmly believe that a tonsil cannot be completely removed with the guillotine. Indeed, a good many of the public (instructed by their doctors, no doubt) are of the same opinion. There is some justification for this view, for undoubtedly a great deal of bad work is done with the guillotine. Now, why should this be? If Sluder can produce 99.6% of complete enucleations, the method cannot be at fault. My experience assures me that it is not at fault. Why, then, does not the method yield such excellent results universally? Several reasons suggest themselves.

Many doctors imagine that tonsils can be removed by anyone as soon as he can write M.R.C.S. or B.Ch. after his name. They think that tonsils are like ripe strawberries, ready to be plucked off. They are confirmed in this opinion when two or three come out successfully. The fact that the fourth or fifth is badly done does not shake their complacency. But this means 20% bad results—enough to give the method a bad name. The fourth is perhaps a "mushy" tonsil. The lymphoid tissue strips off, leaving the capsule behind with remnants of tonsil tissue. The next may be one with a horizontal cleft near the lower pole, inviting the ring of the guillotine to be placed in the cleft, and so leaving a lower pole. Again, perhaps the capsule is thickened and there is difficulty in invaginating the tonsil into the ring of the guillotine. Too much pressure is used with the finger, and it perforates the anterior pillar. The pitfalls are many and are not realized at first.

The bad results are not noticed by the parents. The surgeon "gets away with it." In other operations, such as appendectomy or hernia, a bad one will become manifest immediately, so it follows that the surgeon learns to do these under supervision and does not attempt them until he is competent. The analogy with golf is rather apt. The member who has just been elected sees the professional tee up a ball and drive it down the fairway 250 yards. It looks so simple, but the beginner does not find it so. He has to practise and practise; after a time he gets to the stage of missing one shot in four, but his handicap is then only 18. He has to have lessons and do more practice before his handicap gets down to single figures. Only a few reach the scratch mark—those who are endowed with a fine touch and good muscular co-ordination. So it is with guillotine tonsillectomy. It requires good "hands" to start with and long—very long—practice to achieve anything like 100% success. Also, the surgeon must be able to use his left hand as well as his right.

Another cause of poor results is that at many hospitals tonsil operations are left to the house-surgeons unsupervised. They do their best, but their results cannot reach the desired 100% goal in their short period of residence, and their successors repeat this unsatisfactory process. There is another reason for the odium cast on the guillotine. Many of our surgeons who restrict themselves to the dissection method and who never had the opportunity or desire to persevere with the long practice required for expert guillotine work are apt to condemn the method and noise it abroad that the only satisfactory method is by dissection. To justify this they point to some of the bad results outlined above.

Finally, the removal of a child's tonsils and adenoids in a minute or two with the guillotine is a much less spectacular operation than a set dissection lasting ten times as long. The parent may think he is getting better value for his money for the longer operation, which is not always the case.

I have nothing to say against the dissection operation. It is an excellent method, and in adults is, I think, the method of choice. It is more easily learned, and a good many house-surgeons learn it fairly well in their six-months period—although further practice is required before they become experts.

The Methods compared in Adults

So far I have dealt with the guillotine operation in children. It may be of some interest to compare the value of the two methods in adults. To get some evidence on this point I have during the last two years tried out the method of dissecting one tonsil and guillotining the other—alternately right and left. Analysis of the first 100 cases showed that 11 were unsuitable for the guillotine. These were cases of very flat tonsils, some which had had a previous operation, some with a very thickened capsule, the result of quinsy, etc. In the other 89 cases observation notes were made on: (1) haemorrhage, (2) appearance of the tonsil bed, (3) after-pain.

The results showed practically no superiority of either method. The desired slit-like bed was more often achieved by the guillotine. Those requiring a ligature were about equal. My conclusion, then, is that the guillotine method is not applicable to all cases in adults—and also that it requires a great deal more skill to get good results than is the case with children. The dissection method is therefore, I consider, the method of choice in adults. In this method each surgeon develops his own technique. One point I would like to emphasize, and that is the importance of dissecting up the mucous membrane from the pillars and upper pole and then "delivering" the tonsil from underneath this fringe of mucosa, which will then form a covering for the edges of the pillars. This procedure greatly lessens after-pain and prevents cicatricial contraction of the pillars.

It is interesting to recall that Whillis and Pybus in their first 200 cases claimed only 65% of perfect tonsillectomies. Compare this with Sluder's results a few years later. In 1924 I published a paper on this subject.¹ In this I estimated the number of completely successful results at 95%, but now I believe even this is too low. By immediate inspection of the bed and examination of the tonsil removed it can be ascertained if a fragment has been left. This can be dissected out in a few minutes. Such a necessity is very rare, but its recognition is important if we aim at perfect results.

It must not be thought that tonsillectomy by dissection is always easy. The difficult tonsil for the guillotine is difficult for dissection, and the results by this method are not always perfect. As in every operation, skill increases with practice, and skill is more rapidly gained in dissection than in the guillotine method. Serious bleeding does not often occur, but it can be very alarming and indeed dangerous. The surgeon therefore must be competent to deal with haemorrhage in the tonsil bed. Finally, our aim must be "to remove the tonsil, the whole tonsil, and nothing but the tonsil." The guillotine is more likely to fail in the second, dissection to err in the third, of these aims.

Anaesthesia

Our routine for adults is intratracheal ether with packing of the hypopharynx. This helps to prevent the possibility of

¹ *Practitioner*, 1924, 113, 100.

inhalational pneumonia or lung abscess. For the guillotine operation in children ethyl chloride is used, and for dissection in children a short ether anaesthesia. The children are given 1 to 2 grains (according to age) of seconal an hour before operation, and one hopes that this will obliterate any memory of the operation. Again we find the improvement in statistics since our specialist anaesthetist has been appointed for this purpose. Many years ago, when changing house-surgeons gave the anaesthetics, we had two or three fatalities, but for five years since this anaesthetist has been doing the work we have had none.

The conclusion is that the appointment of special surgeons and anaesthetists has raised the standard of tonsillectomy to a very high level.

ATYPICAL "INFLUENZAL PNEUMONIA" AT A SCHOOL

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During a period of three months, March to May, 1942, a small but peculiar epidemic occurred at the evacuated section of Highgate School, at Westward Ho. The history of the outbreak may be considered worth recounting.

Symptomatology

The outbreak had the external appearance of an influenza. The temperature at the start was seldom more than 102°, and remained so for one or two days; it then dropped to between 99° and 100°, and remained there from 3 to 7 days. The symptoms, in the main, consisted of a mild headache or a sore throat; apart from the temperature the only positive finding was a pharyngitis. After a week or less the temperature became normal and the symptoms cleared up. After a further period of 2 to 7 days, however, the temperature suddenly rose again, in one or two cases quite steeply, and remained above normal for some days, in a few instances for a fortnight or even longer. During this period a cough often appeared, and in a few cases a few very faint crackling rales were heard over a localized area of one lung.

In these cases radiological examination of the chest was carried out, but, owing to the long distance from the hospital, this was possible only after some delay, when the journey could be undertaken without too much risk. In all these cases (7), with one exception, a typical x-ray picture was found: an area of one lung-field was distinctly blurred—frequently the lower third of the right lung-field—the movement of the corresponding dome of the diaphragm was impaired, and in one case there was a small effusion in the costophrenic angle. The homogeneous shadow was similar to that of a resolving area of pneumonic consolidation. Later control radiographs revealed that this diffuse shadow had disappeared and the lung-field showed no abnormality. In two cases, however, a recrudescence occurred after an interval of 4 to 6 weeks, with exactly the same symptoms, and repeated radiographs showed that the previous pathological shadows had become more marked.

In all, there were 28 cases of "influenza" during the same period, which may, of course, have belonged to quite different types. In one group of about 10 cases the symptoms were very slight, and lasted a few days only. Of the remainder, 12 cases showed the typical features described above, consisting of a two-stage illness, separated by an afebrile interval of apparently complete health.

In this second group 7 cases were radiographed; 6 of them showed residues of a diffuse inflammatory process in an area of one lung. The following history is typical of one such case:

A schoolboy aged 14. No previous history of importance. During Easter holidays, at the beginning of April, 1942, he was in bed with a mild influenzal attack, slight unproductive

cough, and temperature just over 99°, which settled down in a week. He was quite fit for a month, but on May 14 developed a febrile cold again, and the temperature rose to 99.8°, but was normal again on May 17 and 18. On May 19 the temperature was 102.6° in the morning; sulphapyridine was given 4-hourly and it fell to 99.2° in the evening. At this time some crepitations were heard over the right lower lobe behind. By the 21st the temperature had settled to normal and remained so.

X-ray examination, May 26 (A. J. M.).—"Screening: Upper lung-fields light up brightly and evenly. There is some increased density at inner angle of right dome of diaphragm, and outer sulcus of same is blurred. Film: This confirms screening report. There is very slightly diminished translucency over right upper lung-field compared with left. There is some increased density and striation at inner angle of right base, and filling up of outer sulcus of right dome. The x-ray appearance suggests a residual inflammatory process at right base following influenza." June 9, screen only: outer sulcus of right dome of diaphragm has now cleared.

In this case the administration of sulphapyridine appears to have speeded up recovery; but other cases, not treated with it, took a similar course, and its value in this type of illness must therefore remain doubtful.

Conclusions

Unfortunately, extensive bacteriological investigations have not been possible, and we cannot say to what type of pneumonia these cases belonged. Nevertheless, their publication seems to us desirable for the following reasons: (1) The course of the illness is not typical for an influenzal pneumonia; it might even belong to another group of virus disease. (2) As no other cases have been noted in the district among adults, it may be that the illness attacks mainly adolescents. (3) Owing to the mildness of the illness and the absence of any marked symptoms, it will rarely lead to hospital treatment, and its special characteristics and complications may easily be overlooked; the attention of the practitioner should therefore be drawn to it.

Medical Memoranda

An Unusual Case of Injury to the Female Urethra

Injury to the female urethra apart from childbirth or operative procedures is very uncommon. This is presumably because of its comparatively well-protected position and shortness. In the male, on the other hand, injury to the urethra is more frequent, and it is well known that it is usually caused by falling astride an object. In the case here described an injury was sustained by a woman which we consider to be comparable to the well-known injury to the male urethra. Interest is added to the case when it is learnt that the patient was wearing trousers at the time of the injury.

CASE HISTORY

A married woman aged 38, a unipara, had just returned from her work as a milk roundswoman, and was putting up black-out curtains in her home, climbing on to the window-sill to do so, when she slipped and fell astride the back of an ordinary wooden chair. Her fall was fairly heavy: she was apparently standing about 4 feet above the chair when she slipped. It appears that she came down so that a projecting knob on the corner of the chair struck the anterior part of the vulva and anterior vaginal wall. She felt an immediate "numbing" pain, and after a few seconds found that she was bleeding profusely.

On admission to Hendon Cottage Hospital there had been a fair amount of haemorrhage, which was seen to be coming from an extensive tear in the anterior vaginal wall and vestibule. This tear extended transversely across the anterior vaginal wall at the exact level of the urethral orifice and each end of the tear split into two directions, one running backwards and upwards into the vagina, and the other forwards on to the vestibule. There was also considerable bruising of all the parts, and a large haematoma had formed under the anterior end of the left labium. There was no sign of the urethral orifice.

Under an anaesthetic given by one of us (R. H. C.) the patient was put in the lithotomy position and the tear carefully examined (D. J. N. S.). It was then seen that the urethra had been torn away from the vaginal wall and was lying free in nearly all its length in a space between a flap of anterior vaginal