FACTORS IN PAINLESS TONSILLECTOMY.

By C. HAMBLÉN-THOMAS, F.R.C.S.

(Surgeon, Metropolitan Ear, Nose and Throat Hospital; Surgeon, Throat Department, West London Hospital.)

Many factors are concerned in obtaining a comparatively painless progress through convalescence after removal of the tonsils. It is impossible, and, in fact, undesirable, to keep the operation area immobile as in other operations, and so it is important to consider what can be done best for the patient's comfort. I propose to survey the pre-operative treatment, the operation, and the post-operative treatment from this point of view.

In the **pre-operative treatment** the psychological make-up of the patient requires careful study. Fear of the operation is a tremendously important factor that is very often overlooked or not provided for. This fear may be expressed and obvious or it may be suppressed. It is hard to say which is the worst state to be in for an operation. This fear in a child may be due to the child being naturally nervous, or due to its previous experiences during examinations of its throat or dental extractions, or perhaps more commonly, anxiety communicated by the mother with her repeated warnings not to be afraid or that it won't hurt, or even the subconscious effect of the fussing of an anxious mother. Generally speaking men are more apprehensive than women and this is possibly due to the natural submissiveness of women or their greater experience of pain. Some people have a lower threshold to the sensation of painful stimuli than others, and they may bravely hide this or their nervousness with a consequent great mental stress and exhaustion which will show itself during the operation or after. The phlegmatic individual is fortunately indifferent to pain and incidentally is given credit for a greater bravery than he is required to exercise. The thin toxic type of patient with possibly an element of hyperthyroidism is a subject often badly affected by the preliminaries and consequences of tonsillectomy. The nervous patient should be reassured, but not too vehemently. There should be an absence of fuss by those around him, and in the same way any suggestion that he is going to undergo an ordeal is avoided. The operation is treated as a minor experience like the extraction of a tooth. I do not mean by what I have said that the patient is allowed to feel he is neglected or treated with indifference. The patient is isolated from anxious relatives as soon as possible, and a child should be warded away from its mother and preferably where there are other children. It is surprising, especially to the fond mother, how soon a child will settle down away from her. In the same way it is best for a patient, anyhow an adult, to go into the nursing home or hospital the night before the operation rather than on the day of the operation as they have thus an opportunity to settle down in their strange surroundings and get used to the nurses and their attentions, instead of arriving, so to speak, breathless just before the operation. They are given a good night's rest in bed and early the next morning they are placid and not fatigued mentally or physically and in the best state for their operation.

The operation should be done as early in the morning as possible before the patient has had time to dwell on its possibilities. The next step in the preparation for operation is the state of the patient's throat. Actual pain after tonsillectomy is largely dependent on the extent to which the throat has been irritated by recent infection or otherwise. Therefore the patient must be free

from any "cold," either coming or going, and if he has had a cold, a two weeks' interval at least should be allowed before the operation is done. This applies of course to any recent tonsillitis too. It is preferable not to operate if there is any rise of temperature above the normal, although in some cases a slight temperature persists in spite of treatment and on account of the tonsillar infection and then one must proceed to remove the tonsils. An antiseptic gargle such as potassium permanganate (which is one of the best) should be used morning and night for a week before the operation to get the pharynx as free from infection as possible. All dental sepsis should have been eliminated some time before by the dental surgeon. A preliminary course of calcium and iron mixture diminishes the tendency to sepsis and is especially helpful in children. Some anæsthetists say the patient takes the anæsthetic better. All smoking should be stopped for a week before, as it undoubtedly keeps the throat in an irritable inflamed condition, also cigarette smokers are less "nervy" if they stop their habit. Sepsis in the throat is one of the greatest causes of pain after tonsillectomy, so that any means which will prevent it are worthy of consideration. A clean throat is usually free from pain after tonsillectomy unless one of the principal nerves to the tonsil is exposed and then it is usually only painful on swallowing very hot or very cold liquids.

Immediately preceding the operation, treatment with a basal hypnotic or some sedative is the rule to allay the patient's fears and prevent him experiencing the discomfort of the induction stage of a general inhalation anæsthetic. No basal anæsthetic is sufficiently satisfactory alone. This preliminary treatment may be of the twilight sleep order obtained by a subcutaneous injection of morphia and scopolamine. I am not in favour however of morphia in tonsil cases because the patient may not recover his reflexes soon enough after the operation and in a few cases the patient is definitely excitable in the recovery stage. A rectal injection of paraldehyde is very safe, giving about a drachm per stone body weight with due consideration of the patient's age and physique. Complications with paraldehyde are extremely rare and under it the patient is somnolent rather than partly anæsthetised. The main objection is the smell. Avertin by the rectum is comparatively safe and is favoured by many anæsthetists as a preliminary to ether anæsthesia. Nembutal is used in the same way but I prefer it by the mouth although its depth of action is uncertain. After all rectal administrations the rectum should be washed out after the operation. Evipan by the vein is a very pleasant and controllable way of rendering a patient unconscious before an inhalation anæsthesia.

I prefer paraldehyde for children but many children are disturbed by an injection and in these it is as well to give a small dose of sonneryl or some such drug. The placing of a mask over a child's face is usually a very frightening experience and possibly may be the cause of psychoses afterwards.

For the general anæsthetic by inhalation that follows I prefer gas and oxygen and ether, and with a preliminary basal anæsthetic the amount required for the operation is often very little and the recovery of the reflexes at the end is very rapid. This recovery can be hastened by giving CO₂ and oxygen. Retching and vomiting after are usually absent so that the pharynx is not strained by violent movements nor are any blood vessels reopened. In the administration of the anæsthetic instrumentation by the anæsthetist should be as limited as possible and there should be no trauma. Any gag or prop should be used gently and should be sterile. Unless the anæsthetist is very skilled in inserting an intra-tracheal tube I prefer not to

have one used. I have seen a good deal of trauma caused either to the nose, pharynx or larynx by unsuccessful attempts to insert the tube, also there is a possibility of infection being carried down the trachea and in the case of enlarged adenoids some adenoid tissue may be carried down as well. The tongue holder should not be used too readily and if used should be a clip placed through the upper comparatively avascular surface of the tongue and not through from the under to the upper surface. The latter method occasionally causes bleeding into the substance of the tongue from the big vessels on the under surface so that the tongue swells and may suffocate the patient. A clip causes less discomfort to the patient than a clamp if used gently.

Removal of the Tonsils. The tonsils can be removed under a local anæsthetic or a general anæsthetic and in this country are usually removed under the latter because of the high proficiency of our anæsthetists. A local anæsthetic should only be used in the case of a patient who is not nervous and usually women are better subjects than men. It is not sufficient that the patient is brave but he must not be apprehensive or intolerant as having started the operation it is difficult to interrupt it. A local anæsthetic is unwarranted in children. The patient can be helped in the operation under a local anæsthetic by giving a hypnotic such as paraldehyde. Although the sitting up position is the easiest for the operator it is sometimes necessary to have the patient lying on his right side on a table. One advantage of a local anæsthetic is that the recovery period after a general anæsthetic with its consequent nausea is avoided. The writer, although very used to ether at operations, took a long time to get over his strong dislike to the smell of ether after his own operation. In spite of an efficient local anæsthetic the sensation of pulling and manipulation and the spitting of blood is very disquieting to the patient although he may not feel any actual pain.

The operation itself under either local or general anæsthesia should be done with the greatest gentleness and careful dissection, avoiding all unnecessary damage. This is aided by a good anæsthetic with the patient absolutely relaxed. In fact the anæsthetic is a third of the success in the operation.

The faucial pillars are respected in their entirety and the dissection is taken no deeper than the tissues immediately subjacent to the tonsil capsule, all vessels being clamped as they are displayed and before they are separated from the tonsil.

I find the Negus angulated knife the best for incising the mucous membrane of the tonsil. As much mucous membrane as possible is preserved so that it may fall back and clothe the inner surfaces of the faucial pillars. This manœuvre avoids scarring and tightening of the pillars afterwards.

The tonsil is gripped with suitable forceps and pulled medially and the tissues raked off it by the special tonsil rake. Any oozing is controlled by packing the fossa with a gauze swab. I have tried painting the tonsillar fossa after the operation with a non-toxic local anæsthetic but have not noticed that this has made the raw area any more insensitive.

A comparatively painless throat after the operation depends to the greatest extent on *careful* dissection and the absence of sepsis. When the patient returns to bed I avoid any of the morphia compounds for the reasons stated.

I prefer to give a rectal injection of potassium bromide with aspirin before the patient is completely recovered from the anæsthetic, the rectum of course

having been washed clear of any basal anæsthetic. It is remarkable how patients especially children vary in their comfort after a tonsillectomy, and I am sure it depends to a certain extent on their previous state of health and also whether they have been pampered and cosseted. Some children you will find eating bread and butter the evening after their morning operation, others cannot be persuaded to eat for three days.

Early gargling is essential to keep the throat clean and free from pain and to prevent any feeling of tightness afterwards. If patients can really gargle so that the fluid lavages the pharynx it is a great help, and they must be encouraged to do this frequently and courageously by pointing out how much sooner it will ease any discomfort. If gargling is impossible, the fossæ must be sprayed. I find that an aspirin gargle is the best local anæsthetic to the raw fossæ and if a little is swallowed it will do no harm. The secret of gargling well into the pharynx is to take only about a teaspoonful into the mouth at a time and to put the head well back. On the third day I put the patient on to a hydrogen peroxide gargle as this keeps the fossæ clear of membrane or septic material and certainly aids a rapid and non-scarring recovery of the tonsil beds. Euphagin (a benzocaine compound) used sparingly, is a very good anæsthetic to the sore throat when the tablets are allowed to dissolve slowly in the mouth.

With regard to diet I advise the drinking of plenty of fluids and of these I find Rose's lime juice one of the most comforting. Ice is very apt to cause pain by coming into contact with an exposed nerve ending. Ices tend to leave a creamy pabulum in the throat. Jellies and junket and such semi-liquids slip down the throat easily. Oysters, if the patient likes them, also slip down remarkably easily and can be taken the day after the operation.

I encourage the patient to use his voice by talking or reading aloud with the object of maintaining the mobility of his pharynx, but of course not allowing him to fatigue himself. All the time the patient is encouraged to treat his throat normally and not allow it to remain inert and fixed.

The day after the operation he is allowed to sit up in bed if his temperature is normal, and providing his throat is clean he is got out of bed as soon as possible to sit in a chair. It is important to keep the bowels acting, as any constipation has a deleterious reaction on the throat condition. To appreciate the finer points in a painless convalescence I am certain it is helpful to have undergone the operation oneself.