Monopolar Suction Diathermy Adenoidectomy: Technical Note

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Abstract Monopolar suction diathermy allows controlled resection of the adenoids in a near bloodless field. In this article the author describes some technical points to make the procedure safe.

Keywords Monopolar · Diathermy · Adenoidectomy

In positioning the patient for suction diathermy ablation of adenoids the head and neck does not necessarily need to be flat as in for a conventional adenoidectomy. After insertion of Boyle–Davis gag, the palate is palpated to exclude a possible submucosal cleft. The posterior and lateral pharyngeal walls are palpated for pulsation, to exclude a possible aberrant carotid artery.

Two small-bore suction catheters are placed through the nostrils and brought out of the mouth and these ends are clamped under tension to retract the soft palate. An anti-fogged laryngeal mirror is inserted into the oropharynx for indirect visualisation of the adenoid pad and its relations to the choanae and torus tubarus.

Before insertion, the suction coagulator (Vallylab Ref: E2505-10FR) is bent at 2.5 cm from the tip and is then passed through the mouth into the nasopharynx (Fig. 1). The suction coagulator should be bent with the stylet in situ or else the lumen gets kinked and easily blocked during surgery.

The improved visualisation enables the surgeon to remove choanal adenoids, which are present in 10% of patients [1]. Adenoidal tissue encroaching on the eustachian cushions can be suctioned medially and then ablated, therefore avoiding trauma to the eustachian tube openings.

It is better to start removing the adenoidal tissue blocking the choanae first and then work inferiorly. The suction tip needs frequent cleaning as it gets blocked very soon. The laryngeal mirror will also need frequent anti-fogging.

While the tip is in contact with the adenoidal tissue a current (38 W) is applied simultaneously with suction. A continued slow movement over the adenoids with simultaneous suction and diathermy allows precise removal of the bulk of the tissue (Fig. 2).

Extreme care should be taken to avoid thermal injury to the corner of mouth where the suction coagulator is in contact with the skin during the procedure. This can be avoided by cooling it every now and then by suctioning cold saline. This also helps to get rid of the charred tissue which blocks the suction very frequently. The other areas which should be protected from diathermy burns are the posterior end of the nasal septum and soft palate. There have been instances when the nasal catheter used to retract the soft palate was burnt during diathermy. The procedure is complete when the posterior choanae are clearly visible and the nasopharynx had a smooth contour. Length of performing suction diathermy adenoidectomy has been reported as varying between 5 and 18 min [2].

Monopolar suction cautery in adenoidectomy may be considered as a risk factor for Grisel's syndrome [3]. Grisel syndrome is a nontraumatic atlantoaxial subluxation after an inflammatory process in the upper cervical region. Inflammation of the transverse cervical ligament can weaken the atlanto-axial joint and predispose to

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Fig. 1 Suction coagulator (Vallylab Ref: E2505-10FR) bent at 2.5 cm from the tip

Fig. 2 The operating field

subluxation. This can be reduced by using low current for diathermy. The surgeon should make sure that the coagulated tissues are removed by suction simultaneously or else you end up with a large area of charred tissue. We believe that such a block of charred tissue is difficult to remove and is a frequent happening to the junior trainees. Trying to remove that big block of tissue leads to increased use of diathermy to one point which is usually around its pedicle. The best way in this situation would be to remove that tissue with a curved negus forceps.

It is also important not to make any bleeding during the procedure as it will lead to more use of diathermy. Another important point is not to coagulate the tissue in one particular area alone but to use a smooth painting movement.

Post-operatively all patients are prescribed antibiotics for one week and regular analgesics. We feel that the use of post operative antibiotics reduces halitosis even though we couldn't find any evidence to account for it. If the above points are taken care of then monopolar suction diathermy adenoidectomy is a fantastic operation with very minimal complications.

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