



## Case Report: Tribal Habits and Rural Anaesthetist

Authors

**Lalhmingawia<sup>1</sup>, Vanlalmangaihi Hmar<sup>2\*</sup>, Lalramengi<sup>3</sup>**

<sup>1</sup>General Surgeon, Aizawl Civil Hospital, Mizoram

<sup>2</sup>Anesthetist, District Hospital Champhai

<sup>3</sup>ENT Surgeon, District Hospital Champhai

\*Corresponding Author

**Vanlalmangaihi Hmar**

Anaesthetist, District Hospital, Champhai, Mizoram, India Pin 796321

### Abstract

*The habit of chewing betel nut is very common in North eastern part of India especially among the tribal population. Several additives have been added to a betel nut (like lime and betel leaf) making the betel quid. Deleterious effects of chewing betel nut on oral soft tissues are published many times in dental and otolaryngology literatures. Areca – induced lichenoid lesions mainly on buccal mucosa or tongue are reported at quid retaining sites. In chronic chewers, a condition known as betel chewers mucosa, a discoloured area with encrusted change, is often found where the quid particles are retained. These areas result in oral leukoplakia and submucous fibrosis.<sup>4</sup> Apart from chewing betel nut, tobacco chewing (smokeless tobacco) is very common among the same population. Robert O Green Jr DDS et al described 4 distinct lesions associated with smokeless tobacco – erythroplakic lesions of oral mucosa, gingival or periodontal inflammation, combination of oral and periodontal inflammation and cervical erosion of teeth.<sup>1</sup>*

### Introduction

Physician anesthetists are scarce in many developing countries and not available at first referral level health facilities. While in some developing countries such as India, there are a large number of physician anesthetists in the cities, they are generally scarce or even non-existent in remote and rural areas.<sup>2</sup> Anesthetists developed great skills in maintaining safety of patients who are subjected to anesthesia. Rural as well as urban population of India seem to be more aware about surgical part of treatment. Anesthesia is considered secondary to surgery by a large number of population in India<sup>3</sup>. Even though we

have PACs, we don't have time to explain the whole procedure and there is no time to explain the possibility of certain events that could happen, especially when the case seem to be simple and short. But it is a must to explain each and every steps and adverse effects that could happen during the surgery and recovery.

### Case Report

45 years old woman, 65kg stout built with stable hemodynamics presented to General Surgery OPD of Champhai District Hospital (Champhai is a small town in Mizoram situated at India-Myanmar border) with a complaint of thickness of axilla of

both sides for the past 1 year, she had a history of carcinoma breast for which she was given Chemotherapy, Radiotherapy, and surgical removal was already done in the past 2 years in the capital city. She did not give any recent history of fever, cough, trauma. No history of Diabetes Mellitus, Hypertension, asthma, Tuberculosis. She was not aware of any anaesthesia related problem with the previous surgery. However the patient was addicted to chewing betel nut and chewing tobacco (smokeless tobacco) which is a common practice with the people of Mizoram.

The general surgeon planned to remove the axillary thickening/ excessive fat in the axilla as the patient wanted to get it removed and send for histopathological examination again.

The surgeon estimated that the surgery would take hardly 30 minutes. Difficult airway was not anticipated. Mallampati was Grade-II. So GA was planned.

Premedication was done with Inj.Glycopyrolate 1 amp and Inj.Ondansetron 8mg. Preoxygenation with 100% Oxygen . Induction with inj.Propofol 120mgs. Bag and mask ventilation was done. Inj.Succinylcholine 1.5mg/kg was given before laryngoscopy was done with ventilation in between apneic times.

During laryngoscopy I found that the tongue was thick and large – looked swollen than the day (2 days prior to the day of surgery) I examined her in the PAC room. In addition, to make the situation worse, the tongue was injured accidentally and started bleeding profusely. Immediate suctioning was done and 100% oxygen was given by bag and mask ventilation again after Gludels airway was inserted. However, as the bleeding was not stopping and looks increasing, suctioning was repeated and laryngoscopy attempted in order to secure the airway. But the situation was worsened as the bleeding continued. I decided to wake up the patient fast. So we turned the patient to left lateral position and bag and mask ventilation given again. But the patient desaturated progressively despite our efforts. Help was called but I was a single anesthetist in the whole district,

I was helpless and I know I had to do it myself. So finally after few minutes the patient stated breathing by herself and started moving her limbs. There was no newer airway devices in the hospital. Option of cricothyroidotomy and tracheostomy was not considered as I was the only anesthetist in the whole district and there was no ENT surgeon in the hospital at that time. Inj.Botropase 1 amp was given as soon as possible and finally the patient became conscious and bleeding decreases. Finally saturation improved and patient was fully awake. I explained the whole event to her and how I decided to cancel her operation. There was no neurological deficit and patient went home after staying in recovery room for few hours.

### Discussion

Apart from infrastructural deficiencies one of the major challenges of a rural surgical practice is the delivery of safe anesthesia. For such anesthetist practicing in such places, a safe policy is to become familiar with a limited number of drugs for anaesthesia and analgesia to be able to overcome the challenge.

Apart from being a single anaesthetist working alone in a district, the patient had a habit of chewing tobacco and betel nut for the past 25 years, which probably had cause leukoplakia of the oral cavity. There is increased vascularity in early stage of dysplastic transformation in many cases of leukoplakia<sup>5</sup>.

Eipe N had already described that oral submucous fibrosis of the buccal mucosa caused by chewing betel causes difficulty in laryngoscopy and intubation of trachea and these patients often require anesthesia for trismus correction, resection and reconstruction surgeries<sup>6</sup>. Preoperative history of betel chewing may be useful to anesthetist in any part of the world. Specific questioning on frequency, duration and use of commercial products like gutkha, must be routinely asked during pre anesthetic assessment in all adults in north east India tribal population<sup>7</sup>.

### Conclusion

Betel nut chewing habits must be routinely asked during pre assessment in all adults in North East India tribal population with specific questions like frequency, duration and use of commercial products like gutkha/ pan masala- as these gives clue to severity of oral submucous fibrosis and possible difficult intubation.

As for a single (lone) anesthetist working in rural area, it is essential that the staffs which we are working with (nurses, ward boys) are to be trained in handling difficult situation and emergencies. Drugs and equipments has to be explained and teach them how to use in case of emergency. Not many drugs are available nor it is possible to acquire in a remote area as there is always a transportation problem.

From this experience, it is clear that the first and foremost thing a lone anesthetist has to do is to collect and make available affordable newer airway devices and teach the staffs how to use, situation when to use, how to clean and how to sterilise. Train and educate your staff rather than scolding them, always have good communication with the staffs, empower/respect/support your staff.<sup>8</sup>

To conclude: no case is a small case in anesthetic practice<sup>8</sup>: pre anesthetic assessment and history taking should never miss habits of betel chewing and tobacco chewing (smokeless tobacco) in the tribal population of North eastern India.

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