
Mouth Laceration Due To Fall In Wine Tappers: A Report Of 2 Cases

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Abstract

Palm wine tapping is a common economic activity in low resource tropical settings. Palms trees grow to great heights and climbing them to obtain palm products is a hazardous profession especially when appropriate climbing material is not used. We noticed a peculiar facial injury occurring when the wine tappers fall from the high trees, sustaining not only spinal and head injuries, but also a tear in the angles of the mouth because they hold their machetes in their mouth. This is a report of two cases with photos. We think that the availability of adequate harnesses with loopholes for carrying hardware, and helmets can reduce the risks involved in this very risky and poorly paid profession.

INTRODUCTION

In rural settings a majority of the population is uneducated and can only carry out farming activities to sustain their families. In certain regions where palm wine is cherished, wine tapping may be a profitable business.

Palm wine is a spirituous liquor obtained by distillation of fermented sap. The palm tree is particularly important to the local economy, yielding items such as palm oil, palm kernels, palm wine, and material for making baskets, rope, brooms, trays, sieves, stools, and beds. The distinctive columnar trunk grows about 2.5 feet in diameter and can attain heights of over 15 metres. There exist much shorter varieties but they are not very popular with the local population because they have a shorter life span. To obtain these products the wine tapper must reach the top of the tree, using a harness tied around his waist and a knife. Ideally the harness should come with special, easy-to-reach loops for attaching hardware, and be checked quite often. The locally made harnesses do not have these advantages and the wine tapper is forced to hold his cutlass in his mouth while manipulating the harness with both hands. In the event of a fall, not only is the wine tapper subject to spinal injury, but equally to a peculiar kind of facial injury. The force of the fall causes the sharp edge of the cutlass to cut through the angles of the mouth, slicing through the orbicularis oris muscles and sometimes the buccinator muscle.

PATHOLOGY

The appearance of a wound is nowhere more important than on a patient's face and the main task in a low resource setting is to minimise disfigurements since the eventuality of meeting a plastic surgeon is rare. Careful toilet and accurate repair is necessary using numerous fine sutures. As concerns the lips, their anatomy must be respected. The first sutures should be placed on the vermilion border and the second in the labial sulcus. This would ensure proper alignment. The vermilion border can be marked with a felt pen before injection of anaesthesia because the anaesthetic will blanch it and make alignment difficult. If the orbicularis muscle is affected, it should be sutured first. Injuries inside the cheek should be repaired with catgut. (1)

CASE PRESENTATION

CASE 1

We report here the case of a 28 year old wine tapper who was referred to us from a neighbouring health centre. He was brought in on a hard surface stretcher and his head was fastened to limit cervical and spinal injury. On arrival the most remarkable features were the gapping wounds on both sides of his mouth (Photo 1). The tear on the right side was deeper. Haemorrhage was surprisingly not massive. He had another wound on his right thigh. The nurse who brought him reported that he had been carrying his machete in his mouth when he fell from a 10m tall palm tree. His vital parameters were stable but he was agitated. There were however no reflexes or voluntary activity in the lower limbs.

He was cleaned up sedated and the wounds were sutured in two layers using plain sutures for the mucosa and muscle, and nylon sutures for the skin, under local anaesthesia. The wounds were completely healed in 10 days but there was no distal sensation or voluntary control in the lower limbs, only some reflex activity.

CASE 2

A 38 year old man came into our outpatient department limping. He complained that the wound he had sustained after a fall from a 4 metre tall palm tree was still bleeding despite suturing and ten days stay in a health centre. We looked at the wound and found that the surrounding tissue was inflamed. No pus was forthcoming, but we thought it was infected. On further questioning we found out that he was a wine tapper and that his harness had given way while he was climbing, ten days ago. He suffered back pain after the fall and a gash on the left angle of his mouth (Photo 2). He also was carrying his machete in his mouth. The wound was already healed and we could see only a linear scar of about 3 cm extending laterally from the corner of his mouth.

COMMENTS

Small lacerations of the buccal mucosa usually do not require suturing. Local anaesthesia is adequate for lacerations that do require suturing. For good cosmesis, proper anatomical alignment of the borders is essential. After the initial suture is inserted, repair of the rest of the wound is done in layers, starting with the mucosa and progressing to the muscles and finally the skin.

These two cases portray a peculiar injury which is becoming more and more frequent in our setting. Falls from palm trees have been associated with many of the cases of paraplegia we find. It is saddening to think that the tappers and other climbers are paid only 100CFA FRS per tree they climb. The Cameroon Development Corporation (CDC) developed a new breed of palm trees which don't grow more the 3metres, hereby easing the process of wine tapping and reducing the

risks associated with climbing. These trees have shorter live spans and are not popular among the tappers. The taller breed can last for decades, and still bear fruit and produce wine. These wine tappers do not check their harnesses routinely and may use the same harness over many years, believing that because it has lasted that long, it will last even longer. Some of them are unfortunate enough to cut the harness themselves while trying to cut the palm leaves. This kind of trauma has a particular aesthetic importance owing to the fact that gross deformation may occur if it is not properly managed and that there may be a tendency to neglect the facial injury and concentrate more on the life threatening spinal injury.

CONCLUSIONS AND RECOMMENDATIONS

This kind of injury is easily preventable and should not be neglected. It is a problem that may also be frequent in other tropical countries where palm trees grow. The development of proper harnesses with loops for carrying hardware may reduce the risks. Other studies have shown that the use of helmets can reduce head and facial injury in bikers and skiers. (2, 3) Holding of machetes in the mouth should be discouraged by all means. Reports as to that falls from trees are due to drunkenness are probably unfounded because the freshly tapped wine has a low alcohol content.

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