

Traditional Uvulectomy: A common and potentially life-threatening practice in a developing country

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ABSTRACT

Objective: Traditional uvulectomy is a harmful practice that involves the removal of the uvula. It is usually performed by non-medical personnel using mostly unsterile instruments. Notwithstanding the increasing number of health facilities, it is surprising that this aged-long crude practice with significant complications is still rampant in the 21st century.

Material and Methods: This is a case series of four males with the age range of 5-months to four years who had traditional uvulectomy following febrile illnesses but with no improvement of symptoms. Thereafter, all presented late to our facility with diverse complications, including haemorrhage, infections, and convulsions. Three recovered fully following prompt treatment, however, one mortality was recorded.

Conclusion: These cases highlight the life-threatening complications associated with traditional uvulectomy and the need for drastic measures to curtail the practice.

Keywords: Traditional uvulectomy; life-threatening; developing country

INTRODUCTION

The palatine uvula, commonly referred to as the uvula, is a conic projection from the back edge of the middle of the soft palate; it comprises connective tissue containing numerous racemose glands and muscular fibers (1). The uvula also has many serous glands that produce thin saliva to keep the throat moist (2). The muscular part of the uvula shortens and broadens when the need arises (3). This change in contour allows the soft palate to adapt closely to the posterior pharyngeal wall to help close the nasopharynx while swallowing (3). The uvula also helps in pronouncing a range of consonant sounds (3). Inflammation of the uvula (Uvulitis) may cause the uvula to touch the throat or tongue, eliciting a gag or choking reflex (4). Snoring or heavy breathing during sleep could result from an enlarged or swollen uvula. In some cases, this may lead to sleep apnea (5). Uvular inflammation or enlargement, if severe, may require removal of the uvula (5). This involves a surgical procedure called uvulopalatoplasty, which the otolaryngologist safely performs (5). On the other hand, traditional uvulectomy is a harmful procedure commonly practiced in our environment, mainly on children. Unfortunately, there's a shortage of literature in this part of the country, although anecdotal evidence abounds. This unfortunate practice involves the removal of the uvula, usually performed by non-medical personnel such as traditional healers who inherit the skills from their parents or masters with no formal medical training (6,7).

There have been several reports of traditional uvulectomy in African countries including Nigeria, with few cases outside the African continent (8). It is a common traditional treatment in Tanzania, Sierra Leone, and Nairobi for cough (9,10). Adoga and Nimkur reported a prevalence rate of 32% in Northern Nigeria, of which 86.1% of the patients had uvulectomy during childhood (8). However, these figures may be higher due to under-reporting. It is believed that only the traditional healers are competent to carry out the procedure as surgeons are unwilling to remove the uvula unnecessarily despite persistent demand from the patients (11). Uvulectomy is a cultural practice in some countries as part of the child's naming ceremony on the seventh day of life, while some ethnic groups believe that removing the uvula is a preventive measure for diarrhea and vomiting and helps children swallow (12-14). In Ethiopia, some tribes believe that the uvula is a source of thirst and that by removal of the uvula, they will need less water and tolerate the thirst for water better (12). Recourse to this harmful practice in other places is because of the belief that the uvula is responsible for medical problems within the throat, such as chronic cough, sore throat, or loss of voice (6).

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Most persons who carry out traditional uvulectomy in Nigeria are middle-aged barbers who carry out this native surgery as part-time jobs (11). The procedure is carried out without pre-medication or anesthesia using mostly unsterile instruments such as a sickle-shaped knife (11). The barbers have the unfounded belief that the viscosity of the blood is higher in a cold environment; hence, the procedure is usually carried out in the early morning to prevent severe bleeding (11). After the procedure, a herbal extract or gin is applied to achieve hemostasis (11). Acute complications associated with traditional uvulectomy account for most presentations to the hospital. These include postoperative haemorrhage, local infections, systemic infections, and death (15-17). Chronic complications have also been reported and include speech abnormalities and infections (14, 18). The authors decided to report this case series because of the morbidity and mortality associated with traditional uvulectomy, particularly in children, and highlight the challenges in its management.

MATERIAL and METHODS

The admission case notes of four children with complications of traditional uvulectomy managed at the Children's Emergency Room of Enugu State University Teaching Hospital (ESUTH), Parklane, Enugu, South-east Nigeria, over a three-year period, from July 2019 to June 2022 were reviewed. Relevant histories, examination findings, investigations, treatment and outcome of treatment were obtained.

RESULTS

Case 1: PD, a four year old female was brought to the children's outpatient clinic of ESUTH, with a two-month history of progressive weight loss and paleness of the body, one-month history of body swelling, and three-week history of high-grade fever. She was given a mixture of milk and tin tomato paste as a blood tonic, and a traditional uvulectomy was performed for the weight loss. About a week after the procedure, she developed body swelling and high-grade continuous fever, which did not respond to over-the-counter medications. Nutritional history of the patient was grossly inadequate, and the her family was from Ogunlesi region (socioeconomic class V).

Examination at presentation revealed a chronically ill-looking child with bilateral pitting pedal oedema up to the knee, widespread hypopigmented macules sparing the face, and a poorly healing ulcer on the right foot. The missing uvula was noted. Patient weight was 11kg (below the 3rd centile for age). A diagnosis of Severe acute malnutrition with sepsis was made. Total white cell count was 9,700/mm³, 45% granulocytes, and 51% lymphocytes. Haematocrit was 11.1g/dl, and platelet count was 196,000/mm³. Blood film was positive for malaria parasites. Serum electrolytes were normal. She was managed with intravenous ceftriaxone, oral artemisinin combination therapy, multivitamin syrup, and zinc supplementation. She also had nutritional rehabilitation. She showed significant improvement and was discharged after 12 days. Unfortunately, she was lost to follow-up.

Case 2: OC, a six month-old male was brought to the children's emergency room of ESUTH with two weeks history of high-grade fever and one-week history of cough, frequent loose stooling and vomiting and difficulty

swallowing. At the onset of symptoms, he received oral medications and injections from a primary health centre, but symptoms persisted. He was later taken to a herbal home where traditional uvulectomy was done. Following the procedure, symptoms worsened, and he refused feeds, necessitating presentation to our facility. The family was from Ogunlesi region (socioeconomic class V). At presentation, he was febrile with an axillary temperature of 40°C, had tachycardia, tachypnea with features of moderate dehydration. Examination of the buccal cavity revealed poor hygiene, cut uvula, and purulent exudates around the uvula and tonsillar bed. A diagnosis of sepsis with moderate dehydration was made. Blood glucose was 90mg/dl. Total white cell count was 5,020/mm³, 60% granulocytes, and 40% lymphocytes. Haematocrit was 9.2g/dl, and blood film was positive for malaria parasites. He was rehydrated and placed on intravenous maintenance fluid. Also, he was commenced on intravenous ceftriaxone and vancomycin, which were later changed to meropenem and gentamicin following the sensitivity pattern of the throat swab that yielded coliform organisms. In addition, he was given intravenous Artesunate, syrup Ibuprofen, and tablet zinc. The child improved with the resolution of all symptoms and was discharged home in stable clinical condition after spending 21days in the hospital. He was doing well in the third month of follow-up.

Case 3: NC, a five month old male brought to the children's emergency room with a five-day history of fever and frequent watery stooling, and four-day history of the paleness of the body. He received some over-the-counter medications with no improvement and was subsequently taken to a traditional home where he had traditional uvulectomy done with significant bleeding, necessitating presentation to our facility. The family was from the Ogunlesi region (socioeconomic class V). Examination at presentation revealed an acutely ill-looking male infant in respiratory distress, febrile with an axillary temperature of 38°C, and was pale. The uvula was missing. His respiratory rate was 56 breaths per minute and pulse rate was 150 beats per minute. Post uvulectomy anaemia and malaria infection diagnosed. Blood film was positive for malaria parasite. Haemoglobin level was 6.8g/dL. He was transfused, and commenced on intravenous artesunate and ceftriaxone. He also received vitamin A, Zinc tablet, and syrup ibuprofen. Symptoms resolved gradually and he was subsequently discharged in stable clinical condition.

Case 4: AB, a one year-old male who was brought to the children's emergency room with symptoms of frequent watery stooling, vomiting, fever and paleness of the body that started seven days before presentation. A day after the onset of symptoms, he was taken to a herbal home where he was given oral herbal concoction and had his uvula cut off, but there was no improvement, instead, he developed multiple episodes of generalized tonic clonic convulsions. He was then taken to a private hospital where some injections and intravenous fluid were given with no improvement prompting referral to our facility. The family was from the Ogunlesi region (socioeconomic class V). Examination at presentation revealed an acutely ill child, unconscious, febrile with an axillary temperature of 39.1°C, dyspneic, pale, and had fresh scarification marks on both temples. Examination of the buccal cavity revealed poor oral hygiene with purulent exudate on the tonsillar bed. He also had hepatomegaly and crepitations in the lung fields.

A diagnosis of sepsis with severe malaria to rule out meningitis was made. Blood glucose was 12mg/dl. Total white cell was 18,000/mm³, 81% granulocytes and 18% lymphocytes, and hematocrit was 6g/dl. Serum electrolytes showed hyponatremia and hypokalemia. He was commenced on intranasal oxygen, transfused with fresh whole blood, and also placed on intravenous ceftriaxone, artesunate and phenobarbitone. Deranged electrolytes were appropriately corrected. However, his condition deteriorated, and he died on the 6th day of admission.

DISCUSSION

Traditional uvulectomy is a common and age-long practice in Africa. There have been several reports of this dangerous and potentially life-threatening procedure in Nigeria and other African countries, with few cases outside the African continent (8). Over three decades ago, Katz (19) predicted a decline in the practice based on projected widespread education and increased access to health care. However, despite the increasing access to health care, especially in urban centers in Nigeria, traditional uvulectomy is still very common and rampant, with some identifiable promoting factors.

The four complicated cases managed over a three-year period in our facility, located in an urban centre, all belonged to the Ogunlesi socioeconomic classes IV and V, which are the lower socioeconomic class (20). Low socioeconomic factors have been identified by several authors as an adverse predictor of health and disease outcome (21-23). It is not surprising that this is a major factor considering the rising level of poverty and cost of living in Nigeria, (24,25) even though there seem to be increasing number of health facilities. It is obvious that the predicted decline in the practice of traditional uvulectomy by Katz (20) may never be within reach without improvement in the socioeconomic class of the people which is a factor of parents' income and highest level of education.

Similarly, medical pluralism, which is the employment of more than one medical system or the use of both conventional and complementary and alternative medicine (CAM) for health and illness, (26) is quite prevalent in Nigeria and other parts of sub-Saharan Africa. Sick children are frequently subjected to multiple and simultaneous treatments by parents and caregivers, hence the persistence of this practice of traditional uvulectomy (9,27,28). It is not uncommon to find ill children receiving herbal concoctions, trado-medical procedures such as traditional uvulectomy, and some form of orthodox treatments usually obtained from patent medicine dealers, as seen in all of our patients. This usually results in late presentation, thus leading to increased childhood morbidity and mortality (29,30)

Ignorance and cultural practices are also among the possible driving factors to the practice of traditional uvulectomy. The common indications for this procedure include cough, fever, sore throat, vomiting and diarrhea, hematemesis, rejection of breast milk, growth retardation, and in some cultures, as part of ritual ceremonies in the first week of life (8,17,12,31). It seems these symptomatology have been linked by these "practitioners" as a manifestation of uvulitis. Unfortunately, it is worthy of note that all our patients still had the symptoms,

and were even worse after the procedure lending credence to the inefficacy of the procedure (8,17).

There are several reports of complications in children subjected to traditional uvulectomy (8,10,15-17,32,33). These include haemorrhage, septicaemia, cellulitis of the neck, peritonsillar abscess, pneumothorax, parapharyngeal abscess, tetanus, risk of the Human Immunodeficiency Virus (HIV) infection, and death; with infection and haemorrhage being the commonest complications in most reports (8,15-17,32,33). All the patients in our study had infection/sepsis requiring intravenous antibiotics. Two had significant bleeding, and one had severe anaemia necessitating blood transfusion. Unfortunately, one of the four cases died on the 6th day of admission. In Jos, Nigeria, Adoga and Tonga (8) noted that haemorrhage was the commonest complication among their cohorts followed by infection. Similarly, Sawe et al. (17) noted that most patients in their cohort had infections requiring intravenous antibiotics, and a significant number required blood transfusion. Mbaneko and Fabian (33) reported bleeding and difficulty/painful swallowing as the only complications among Tanzanian children. However, they noted that the respondents may have missed out on infection as a complication due to the inability of the caregivers to associate the post uvulectomy symptoms with the procedure.³³ Furthermore, this practice accounts for the delay in hospital presentation resulting in high morbidity and mortality from easily treatable conditions.

The four cases reported in this series seen over a three-year period may suggest a low prevalence of this practice in our environment, however it is pertinent to note that these presented to the hospital because of complications that resulted from the procedure. In contrast, the high prevalence rate of 32% reported by Adoga and Nimkur (8) in Northern Nigeria was from a prospective study which reviewed 517 patients seen in the out-patient clinic with various otolaryngological complaints of which 165 (32%) had amputated uvulae. Based on this, the authors are of the opinion that the prevalence of this practice may also be high in our environment. A proportion of these "victims" may not develop complications, thereby perpetuating the belief that this practice is at best effective.

Although, some of the promoting factors and complications of traditional uvulectomy have been highlighted, they may not have told all the stories behind this ugly practice. Further research is necessary to determine the prevalence rate in our region and identify why this harmful procedure still occurs in this day and age. The authors hope this paper will increase awareness about this dangerous and unnecessary practice and contribute to its elimination.

CONCLUSION

Traditional uvulectomy remains a mainstay in treating childhood illness among traditional medical practitioners and is associated with life-threatening complications and no benefits. Improved standard of living, increased health awareness campaigns, enactment, and enforcement of laws prohibiting this practice are advocated.

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