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## SUPERFICIAL PAROTIDECTOMY UNDER LOCAL ANAESTHESIA: A CASE REPORT

Osunde OD<sup>1</sup>, Bassey GO<sup>2</sup>, Fomete B<sup>3</sup>

<sup>1</sup>Department of Dental and Maxillofacial Surgery, University of Calabar Teaching Hospital, Calabar, Nigeria; formally Department of Dental and Maxillofacial Surgery, Aminu Kano Teaching Hospital, Kano, and Visiting Consultant, Murtala Mohammed Specialist Hospital, Kano, Nigeria.

<sup>2</sup>Department of Dental and Maxillofacial Surgery, University of Calabar Teaching Hospital, Calabar, Nigeria.

<sup>3</sup>Maxillofacial Unit, Ahmadu Bello Univeristy Teaching Hospital, Shika-Zaria, Nigeria.

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### ABSTRACT

*Parotidectomy is usually performed under general anaesthesia. Reports have shown that the procedure can be performed under local anaesthesia. The advantages of local anaesthesia include short hospital stay, lower cost, absence of morbidity associated with general anaesthesia and ability to test for facial nerve functions without the need for nerve stimulator. We present a case of superficial parotidectomy performed under local anaesthesia in a Nigerian hospital. The procedure was well tolerated, postoperative recovery uneventful and aesthetic outcome was good.*

**Keywords:** *superficial, parotidectomy, local anaesthesia*

### INTRODUCTION

Enlargement of parotid gland whether due to benign or malignant tumors is of great cosmetic concern to affected patients. Depending on the extent, the lesion could be excised by superficial or total parotidectomy. Surgeries of the parotid gland are usually done under general anaesthesia without muscle relaxants to facilitate intropertive facial nerve stimulation, with a nerve stimulator<sup>1</sup>. However, there has been a few previous reports suggesting that it is possible to carry out this surgery under local anaesthesia.<sup>2,3, 4</sup> Most secondary health facilities lacked the required anaesthetic personnel especially as it relates to head and neck surgical procedures and the operating surgeon has to rely on his knowledge of regional or local anaesthesia (LA) for some selected cases. To the author's knowledge, superficial

parotidectomy under local anaesthesia has not been previously documented by Nigerian authors. In a report of day case oral and maxillofacial surgeries in a Nigerian district hospital, parotidectomy was not listed among the operations that were routinely done under local anaesthesia.<sup>5</sup> The present paper is a case report of an elderly patient who had superficial parotidectomy under local anaesthesia at a secondary health centre in northwest Nigeria.

### Case Report

A 70 year old female Nigerian patient presented to the Maxillofacial Unit of Murtala Mohammed Specialist Hospital, Kano, Nigeria, with a 10 year history of a painless left preauricular swelling. Clinical Examination showed a large preauricular swelling measuring 8cm x 12cm in its greatest diameter. There was an area of ulceration from previous attempt at treatment by local or traditional herbal healers (Figure 1). The lesion was firm, unattached to the overlying skin and somewhat free from the underlying structures, and was not tender on palpation. Laboratory investigations were unremarkable. A clinical impression of pleomorphic adenoma was made and this was corroborated by the results from ultrasonographic study and fine needle aspiration cytology (FNAC). She was scheduled for surgical excision of the superficial lobe of the left parotid gland under GA. However in view of her age and the absence of a physician anaesthetist, the surgery was done under local anaesthesia.

### Surgical Procedure

The patient was positioned supine with the head turned sideways to expose the affected side and then scrubbed and draped. Three cartridges of 1.8ml lignocaine with adrenaline were infiltrated along the planned

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Corresponding Author: DR. OTASOWIE D. OSUNDE  
Department of Oral and Maxillofacial Surgery  
University of Calabar Teaching Hospital,  
Calabar, Nigeria. Phone: +2348034529092  
E-mail: otdany@yahoo.co.uk

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incision line and randomly around the tumor, care being taken to avoid intravenous injection by repeated aspiration prior to deposition of the anaesthetic agent. About 20 ml of normal saline was injected around the tumor to define the surgical planes. After a period of about 5 minutes a preauricular skin flap was raised using the “lazy s” incision. The lesion was excised using a combination of blunt and sharp dissection. The facial nerve

was not visualized as it was assumed plastered down at the plane of separation between the superficial and the underlying deep lobe. The flap was replaced with vicryl 3/0 and prolene 3/0 for the deeper layer and skin respectively. The procedure was well tolerated and uneventful with an estimated blood loss of about 50 ml. The outcome of the surgery was good (Figure 2) and the patient was discharged home the following day.

**FIGURE 1. INFILTRATION OF LOCAL ANAESTHESIA AROUND THE TUMOR**



**FIGURE 2. IMMEDIATE POSTOPERATIVE PHOTOGRAPH.**



## **Discussion**

There is a widening scope of head and neck procedures that can be done under LA and this is being embraced by various surgical specialties. Apart from dentoalveolar surgeries that are routinely done under LA, other documented procedures include thyroidectomy,<sup>6</sup> tracheostomy,<sup>7</sup> cleft lip repair especially in older children and adults, extensive soft tissue facial laceration, enucleation of cystic lesions and reduction and immobilization of fractures of facial skeleton.<sup>5</sup> With this rising trend, outpatient parotidectomy is also being considered in more and more patients.

Previous reports of parotidectomies under local anaesthesia were based on the techniques of a nerve blocks.<sup>1,2</sup> The nerves of target in this technique are usually the superficial cervical plexus with or without auriculo-temporal nerve. The present report was slightly different in that diffuse infiltration of tumor was carried out, and by extension the related nerves, particularly the great auricular nerve. Supplementation with normal saline infiltration assisted in defining the tissue planes and contributed to the ease of the procedure.

The factors guiding the choice of anaesthesia include cardiopulmonary status, age of the patient, presence of underlying systemic diseases, the size of the lesion and fixation to surrounding structures as well as availability of competent anaesthetists. Although the patient presented in this study had a stable cardiovascular status, the risk of anaesthetic morbidity especially in an elderly patient prompted the choice of local anaesthesia. The other advantages of LA over GA included low cost, short or no hospital stay, lack of expensive equipment and are less technique sensitive and so can be used in a community-based practice where there may be no competent anaesthetists. In addition, there may be no need for nerve stimulator as the facial nerve can easily be identified with command movements by the patient.

Superficial parotidectomy can be performed under local anaesthesia for selected cases. With this technique, the operation can be done

as outpatient procedure and thus avoid the potential morbidity associated with general anaesthesia and the period of hospital stay is also reduced.

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