

**CORRELATING THE ACCURACY OF FINE NEEDLE ASPIRATION
CYTOLOGY AND HISTOPATHOLOGY IN THE DIAGNOSIS OF
PAROTID TUMOURS AT FOUR MAJOR HOSPITALS IN ZAMBIA**

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**A dissertation submitted to the University of Zambia in partial fulfilment of
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2019

DECLARATION

I, KAZUMA SEKE MANASE EPHRAIM, hereby declare that this dissertation represents my own work and has not been presented either wholly or in part for a degree at the University of Zambia or any other university.

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Candidate: _____

Signature

APPROVAL

This dissertation by **KAZUMA SEKE MANASE EPHRAIM** is approved as partial fulfilment of the requirement for the award of the Master of Medicine (GENERAL SURGERY) degree of the University of Zambia

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ABSTRACT

Fine Needle Aspiration Cytology (FNAC) is a cheap, simple, quick, minimally invasive technique that is widely used for preoperative diagnosis of parotid tumours because the parotid gland is not amenable to preoperative sample collection techniques for histopathologic assessment to guide parotid surgery. Twenty-five (25) participants were prospectively studied over a two-year period at four major hospitals in Zambia. FNAC was done using a 10cc syringe and 20-22G needles for sample collection in consented participants. Specimen staining was done with Papanicolaou stain. Histopathology was assessed with haematoxylin and eosin (H&E) stained sections. FNAC correlated with histopathology with a sensitivity of 100% and specificity of 66.7%; positive and negative predictive values of 95.7% and 100% respectively and a likelihood ratio of 3. All parotid tumours were neoplastic with 76% benign and 24% malignant tumours on histopathology. FNAC accurately diagnosed 68% benign and 20% malignant tumours but was not able to diagnose 12% of the samples. This study found that FNAC correlated with histopathology in the diagnosis of parotid tumours. FNAC is useful in the preoperative assessment of parotid tumours as it provides a preoperative diagnosis that influences management by either avoiding surgery (inflammatory lesion) and limiting the extent of surgery for benign and malignant parotid tumours.

Key words: Parotid tumours, Fine Needle Aspiration Cytology (FNAC)

DEDICATION

This dissertation is dedicated to my wife Muleya, my daughter Ngambo, my sons Seke Junior and Emmanuel and my family for the support and understanding during the study.

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ABBREVIATIONS AND ACRONYMS

CCH	Chipata Central Hospital
ECSA	East, Central and Southern African Countries
FCS	Fellow of College of Surgeons
FNAC	Fine Needle Aspiration Cytology/Cytopathology
FNA	Fine needle Aspiration
GPPF	Graduate Proposal Presentation Forum
GS	General Surgery
H&E	Haematoxylin and eosin
LCH	Livingstone Central Hospital
MCS	Member of College of Surgeons
NTH	Ndola Teaching Hospital
PG	Postgraduate
UNZABREC	University of Zambia Biomedical Research Ethics Committee
UNZASOM	University of Zambia School of Medicine
UTH	University Teaching Hospital

