بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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MONA MAGHRABY

TOLUIDINE BLUE VERSUS FROZEN SECTIONS FOR ASSESSMENT OF TUMOR MARGINS IN ORAL SQUAMOUS CELL CARCINOMA

A Thesis submitted to the Faculty of Dentistry - Cairo University in partial fulfillment of the requirements for a master degree in Oral and Maxillofacial Pathology (2018-2019)

BY

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We certify that we have read the present work and that in our opinion it is fully adequate in scope and quality as a thesis towards the partial fulfillment of the master degree requirements in degree in oral and maxillofacial pathology.

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DECLARATION

I declared that this thesis and the content presented in it are my own, has not been used for the award of any other degree, and that I have consulted all the references cited. This work has been carried out in the Faculty of Dentistry, Cairo University, under the guidance of:

Prof. Louloua Mohamed Fathy, prof. Amany Abd-Elhameed Abuo-Bakr

Abstract

Hana'a Hezam Ghaleb AL-Gadi

TOLUIDINE BLUE VERSUS FROZEN SECTIONS FOR ASSESSMENT OF TUMOR MARGINS IN ORAL SQUAMOUS CELL CARCINOMA

Under the supervision of Louloua Mohamed Fathy, Amany Abd-Elhameed Abuo-Bakr

Objective: The aim of this study was to test the accuracy of toluidine blue (TB) in the assessment of intraoperative tumor margins after excision of oral squamous cell carcinoma (OSCC) in comparison to frozen sections (FS).

Methods: a prospective study was conducted at Faculty of Dentistry and National Cancer Institute (NCI), Cairo University from July 2018 to June 2019 A total of thirty patient's surgical specimen of primary OSCC were included in the study. Total of 140 margins were analysis intraoperatively by TB and FS, the result was compared with final histopathological.

Results: Of the 140 examined surgical margins there were 14 margins stained positive with TB. However, of these 14 margins only sex were true positives on final histopathology and 8 false positive, there were no false-negatives. TB staining had sensitivity and specificity of 100% and 94.03%, respectively. The diagnostic accuracy was 94.29% with a positive predictive value (PPV) of 42.86% and a negative predictive value (NPV) of 100%. While for FS there were three true positive, three false negative margins and no false positive. The FS had sensitivity and specificity of 50% and 100%, respectively. The diagnostic accuracy was 97.86%, with PPV of 100% and NPV of 97.81 %.

Conclusion: The TB has high sensitivity to OSCC. It can be used as an adjunct to FS for the detection of positive margins of resected OSCC. The information that provided by TB can be used in guiding FS sampling from exact location instead of random FS biopsy sampling.

DEDICATION

This work is especially dedicated

To

My family who gave

me love, care, and support.

To

My lovely husband who Encouraged, learned, inspired, supported,

, and withstand me from

the beginning as long as

gave me the strength to do the best I can.

ACKNOWLEDGMENT

First, I would like to thank ALLAH for helping me to achieving any work in my life.

I cannot fully express my deepest appreciation and gratitude to **prof. Louloua Fathy** Professor of Oral and Maxillofacial Pathology, Cairo University, for support, guidance and leadership throughout the entire course of this work.

I would express my thanks to prof. Amany Abd El hameed professor of Pathology, National Cancer Institute, for her effort, support, meticulous supervision, observation and guidance.

My sincere thanks to Dr. Omer Jamali PhD candidate of oral and maxillofacial surgery, Cairo University, who offered great effort and time in recruiting patients and collection of clinical data information. I would like to express my most sincere gratitude and grateful appreciation to him for his continuous encouragement support, guidance, on the professional and personal levels.

My great thanks to all staff members of Oral and Maxillofacial Pathology Department, Cairo University, Surgical Pathology Unit at National Cancer Institute, Cairo University for helping me &giving me their experience throughout my work, their efforts will always be remembered.

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