

# ***Dedication***

*To my parents*

*To my family husband & daughters*

*To my brothers & sisters*

*To my teachers & friends*

*I dedicate this work*

## **Acknowledgment**

This research took me months, by that time; I have met with a great people whose contribute in many ways to come out with this project. It is a pleasure to convey my gratitude to them all in my humble acknowledgment.

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## **Abstract**

This is a retrospective study aimed to detect the expression of High Molecular Weight Cytokeratin (HMWCK) tumor marker in thyroid tumors using immunohistochemistry technique. The study was conducted in Radio and Isotope Center- Khartoum (RICK), during the period from May to July 2011.

Seventy five paraffin embedded tissue blocks previously diagnosed as thyroid tumors were selected. The patient's information was collected from the archived files of patients. The patient's ages ranged between 18-75 years, with mean age 46.5 years. Tissue sections were stained using Avidin-Biotin technique for immunohistochemical method for detection of HMWCK tumor marker. The obtained data were analyzed using SPSS computer program.

Out of 75 patients with thyroid tumors 54(72%) were females while 21(28%) were males. HMWCK gave positive results in 46.7% of females and 20% of males and the histopathological diagnosis were 25,25 and 25 papillary carcinoma, follicular carcinoma and benign tumor respectively. HMWCK gave positive results in 25, 24 and only one in papillary carcinoma, follicular carcinoma and benign tumor respectively.

The study concluded that the High molecular weight Cytokeratin tumor marker is highly expressive marker in thyroid carcinomas regardless to the patient's ages and sex.

## ملخص الاطروحه

اجريت هذه الدراسة التراجعية بالمركز القومي للعلاج بالذرة والاشعاع النووي - الخرطوم في الفترة ما بين مايو وحتى يوليو ٢٠١١. هدفت الدراسة لتحديد واسمة الاورام سيتوكيرتين ذو الوزن الجزيئي العالي عند مرضى اورام الغدة الدرقية.

تم اختيار ٧٥ قالب مدعم بشمع البرافين من مرضى مشخصون مسبقا باورام الغدة الدرقية تراوحت اعمارهم بين 18-75 سنة متوسط اعمارهم 46.5. تم صبغ المقاطع النسيجية بطريقة الانسجة المناعية باستخدام تقنية الافديين والبايوتين للكشف عن واسمة الاورام سيتوكيرتين ذو الوزن الجزيئي العالي. تم تحليل البيلانات باستخدام البرنامج الاحصائي المحوسب SPSS .

من مجموع 75 مريض باورام الغدة الدرقية؛ كان 54 منهم اناث و 21 ذكور. اعطت واسمة الاورام سيتوكيرتين ذو الوزن الجزيئي العالي نتيجة ايجابية مع 46.7% من الاناث و 20% من الذكور و كانت نتيجة تشخيص الانسجة المريضة هي 25 و 25 و 25 سرطان غدة حلمى وسرطان غدة جريبى واورام غدة حميدة على التوالي؛ اعطى سيتوكيرتين ذو الوزن الجزيئي العالي نتائج ايجابية هي 25 و 24 و واحد فقط في سرطان غدة حلمى وسرطان غدة جريبى واورام غدة حميدة على التوالي.

خلصت الدراسة الي ان واسمة الاورام سيتوكيرتين ذو الوزن الجزيئي العالي يتم افرزها بصورة عالية في سرطان الغدة الدرقية دونما اعتبار لجنس وعمر المريض.

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