

## الآية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿يس (١) وَالْقُرْآنِ الْحَكِيمِ (٢) إِنَّكَ لَمِنَ الْمُرْسَلِينَ (٣) عَلَى صِرَاطٍ مُسْتَقِيمٍ (٤)  
تَنْزِيلَ الْعَزِيزِ الرَّحِيمِ (٥) لَتُنذِرَ قَوْمًا مَّا أُنذِرَ آبَاؤُهُمْ فَهُمْ غَافِلُونَ (٦) لَقَدْ حَقَّ الْقَوْلُ  
عَلَى أَكْثَرِهِمْ فَهُمْ لَا يُؤْمِنُونَ (٧) إِنَّا جَعَلْنَا فِي أَعْنَاقِهِمْ أَغْلَالًا فَهِيَ إِلَى الْأَذْقَانِ فَهُمْ  
مُقْمَحُونَ (٨) وَجَعَلْنَا مِنْ بَيْنِ أَيْدِيهِمْ سَدًّا وَمِنْ خَلْفِهِمْ سَدًّا فَأَغْشَيْنَاهُمْ فَهُمْ لَا يُبْصِرُونَ  
(٩) وَسَوَاءٌ عَلَيْهِمْ أَأَنذَرْتَهُمْ أَمْ لَمْ تُنذِرْهُمْ لَا يُؤْمِنُونَ (١٠) إِنَّمَا تُنذِرُ مَنِ اتَّبَعَ الذِّكْرَ  
وَخَشِيَ الرَّحْمَنَ الْغَيْبَ فَبَشِّرْهُ بِمَغْفِرَةٍ وَأَجْرٍ كَرِيمٍ (١١)﴾

صدق الله العظيم

الآية (١) الى (١١)

سورة يس

## **Dedication**

**To**

Mustafa B. Mahmoud

Awatif E. Edris

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To: Jamma H. El-teyb

To my sisters: Eslam and Alaa

To all those I am trying to say thank you.

## **Acknowledgement**

I would like to thank Allah for giving me the knowledge and support me to complete this research.

Thanks to my supervisor **Dr. Abu Elgasim Abass Awad Alkareem** for patient guidance, support and valuable advice through the preparation of this work.

Thanks to all my teachers in histopathology and cytology department in Sudan University of Science and Technology. And finally special thanks to **Jamma Hassan El-tyeb** who support me to do this work.

## **ABSTRACT**

This is a hospital based retrospective descriptive case study aimed to detect the expression of cluster of differentiation molecule 117 (CD117) in patients with gastrointestinal stromal tumors using immunohistochemical method.

The study was conducted in Radiation and Isotope Center-Khartoum (RICK) during the period from March to August 2013.

Thirty paraffin blocks were collected using simple random collection method at Radiation and Isotope Center-Khartoum from patients who underwent surgical resection for gastrointestinal stromal tumors. The paraffin blocks were cut using rotary microtome, and then stained by routine haemtoxylin and eosin for histopathology diagnosis and by immunohistochemical method (new indirect method) for detection of CD117.

The age of patients ranged between 1 and 75 years with mean age of 51 years. The study revealed that the most patients were older than 50 years representing 19 (63.3%) and the remaining 11 (36.7%) were younger than 50 years.

Out of thirty samples the study showed that the predominance of patients were males representing 18 (60.0%) and 12 (40.0%) were females.

CD117 result among study samples showed positive expression in 28 (93.3%) patients, and negative expression in 2 (6.7%) patients.

The biological behaviour of tumor in samples revealed that 23 (76.7%) were benign and the remaining 7 (23.3%) were malignant.

The study concluded that there is a high frequency of CD117 positive expression among gastrointestinal stromal tumors, with no statistical association with the biological behaviour of the tumor (benign or maligna

### خلاصة الأطروحة

هدفت الدراسة المستشفوية التراجعية الوصفية الحالية للكشف عن ظهور الواسمة الورمية التجمعية التمايزية ١١٧ (CD117) لدى مرضى الأورام اللحمية المعوية باستخدام كيمياء الأنسجة المناعية.

أجريت هذه الدراسة في مركز الاشعاع والنظائر- الخرطوم في الفترة من مايو إلى أغسطس 2013م.

تم جمع وتقطيع ثلاثين قالب مغمور بشمع البرافين وبعد ذلك تم صبغهم باستخدام صبغة الهيموكسليين والايوسين لتشخيص الانسجة المريضة وكيمياء الأنسجة المناعية (باستخدام الطريقة الجديدة الغير مباشره) للكشف عن CD117 في مركز الاشعاع والنظائر- الخرطوم باستخدام الطريقة العشوائية للجمع من المرضى الذين خضعوا لاستئصال جراحي للأورام اللحمية المعوية.

كانت أعمار المرضى تتراوح بين 1-75 عام بمتوسط عمر بلغ 51 سنة. أظهرت الدراسة أن معظم المصابين كانت أعمارهم أكثر من 50 سنة وكان عددهم 19 مريضا (63.3%) و11 مصابا (36.7%) كانت أعمارهم اقل من 50 سنة.

من أصل ثلاثين عينة أظهرت الدراسة أن اغلب المرضى من الذكور ويمثلون 18 (60.0%) بينما يمثل الاناث 12 (40.0%).

أظهرت الدراسة أن CD117 كان ايجابي الظهور في 28 (93.3%) من المرضى وسلبى الظهور في 2 (6.7%) من المرضى. وايضا كشف السلوك البيولوجي للورم أن 23 (76.7%) من العينات كانت حميدة و7 (23.3%) كانت خبيثة.

خلصت الدراسة الى أن هنالك تكرار عالي ايجابي الظهور لـ CD117 خلال الاورام اللحمية المعوية مع عدم وجود رابطة احصائية مع السلوك البيولوجي للورم (حميد او خبيث).

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**List of abbreviations:**

<b>Abbreviation</b>	<b>Full name</b>
CD117	Cluster of Differentiation 117
GISTs	Gastrointestinal Stromal Tumors
RICK	Radiation and Isotope Center-Khartoum
CT	Computed Tomography
GI	Gastro Intestinal
Kit	Tyrosine- Kinase
PDGFRA	Platelet Derived Growth Factor Alpha
ICC	Interstitial Cells of Cajal
NF	Neuro Fibromatosis
FDG	18Fluoro-Deoxy-Glucose
PET	Positron Emission Tomography
MRI	Magnetic Resonance Imaging
EUS	Endoscopic Ultrasound
CD34	Cluster of Differentiation 34
HPF	High Power Field
SCFR	Stem Cell Growth Factor Receptor
DPX	Distyrene, Plasticizer, and Xylene
DAB	Di Amino Benzidine Tetra Hydrochloride
SPSS	Statistical Package for the Social Sciences

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