الآية

قال تعالى:

بسم الله الرحمن الرحيم

وَلَوْلَا فَضْلُ اللَّهِ عَلَيْكَ وَرَحْمَتُهُ لَهَمَّتْ طَائِفَةٌ مِنْهُمْ أَنْ يُضِلُّوكَ وَمَا يُضِلُّونَ إِلَّا
أَنْفُسَهُمْ ۖ وَمَا يَضُرُّونَكَ مِنْ شَيْءٍ ۚ وَأَنْزَلَ اللَّهُ عَلَيْكَ الْكِتَابَ وَالْحِكْمَةَ
وَعَلَّمَكَ مَا لَمْ تَكُنْ تَعْلَمُ ۚ وَكَانَ فَضْلُ اللَّهِ عَلَيْكَ عَظِيمًا

صدق الله العظيم

سورة النساء الآية 113

Dedication

To my father,

To my mother,

To my brothers, sisters and colleagues…

I dedicate this study.

Acknowledgements

All great thanks are firstly to Allah.

I would like to express my gratitude & thanks to my supervisor Dr. Mohammed Siddig Abdelaziz for his guidance, helpful suggestions, solving problems & his precious advices as well as continuous assistance through the whole process of the research.

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Abstract

This is a hospital based descriptive retrospective study conducted at Omdurman Military Hospital (Khartoum state) during the period from March to July 2013, aimed to detect androgen receptor in prostate cancer.

A total of 40 patients previously diagnosed with prostatic lesions were selected in this study. Their ages ranged between 50-88 years old with mean age (66) year. Tissue sections were stained using two methods; histochemical method using haematoxylin and eosin stain for histopathological diagnosis and immunohistochemical method using new indirect technique for androgen receptor. The data obtained was analyzed using SPSS program version 11.5.

Out of 40 patients with prostatic lesions, histopathological diagnosis revealed 13(32.5%) as prostatic hyperplasia and 27 (67.5%) as adenocarcinoma. Adenocarcinoma showed 10 (37%) well differentiated, 13(48%) moderate differentiated and 4 (15%) poor differentiated. Depending on histopathological diagnosis as gold standard the expressions of AR were found as 2 and 14 in benign hyperplasia and adenocarcinoma lesions respectively, with significant relation between AR expression and type of lesions. This study found no significant relation between AR expression and age group. High expression common among well differentiated adenocarcinoma while moderate and poor differentiated show commonly negative results with insignificant relation between AR expression and cancer stages.

The study conclude AR expression help in differentiation between benign hyperplasia and adenocarcinoma.

المستخلص

أجريت هذه الدراسة الوصفية التراجعية في مستشفي أم درمان العسكري في الفترة مابين مارس إلي يوليو 2013 لاستكشاف واسمة مستقبل الأندروجين في سرطان البروستاتا.

جمعت 40 عينة من مرضي بتقرحات البروستاتا تراوحت أعمارهم بين 50-88 سنة, بمتوسط أعمار 66 سنة.

صبغت المقاطع النسيجية بطريقتين، إحداهما عن طريق الهيماتوكسيلين والايوسين للتعرف على شكل الخلايا , والأخرى عن طريق كيمياء الأنسجة المناعية باستخدام طريقة التقنية الجديدة غير المباشرة لتحديد الواسمة. واستخدم برنامج الحزمة الاحصائية للعلوم الاجتماعية النسخة 11.5 لتحليل النتائج.

من مجموع 40 مصابين بتقرحات البروستاتا أظهرت الدراسة أن 13(32.5%) منهم مصابين بأورام حميدة بينما 27(67.5%) مصابين بأورام خبيثة. الأورام الخبيثة كان منها10(37%) جيدة التمايز, 13 (48%) متوسطة التمايز, و4(15%) ضعيفة التمايز.

اعتماداً علي التشخيص بواسطة أمراض الأنسجة كمرجعية ذهبية، أظهرت الدراسة أن أورام البروستاتا الخبيثة ذات تعبير نسيجي عالي لواسمة الأندروجين بينما الأورام الحميدة ليست ذات تعبيرعال للواسمة, مع وجود علاقة ذات دلالة إحصائية بين التعبير عن مستقبلات الأندروجين وأنواع الأورام.

كما أظهرت الدراسة عدم وجود علاقة ذات دلالة إحصائية بين التعبير عن مستقبلات الأندروجين والمجموعات العمرية.

أظهرت الأورام الخبيثة جيدة التمايز تعبير نسيجي عالي للواسمة بينما أظهرت الأورام الخبيثة متوسطة وضعيفة التمايز نتائج سلبية دائماً , مع عدم وجود علاقة ذات دلالة إحصائية بين التعبير عن مستقبلات الأندروجين ومراحل السرطان.

خلصت الدراسة إلى أن التعبير النسيجي لواسمة الأندروجين يفرق بين الأورام الحميدة والخبيثة للبروستاتا.

List of Abbreviations

AR	Androgen Receptor
CPPS	Chronic Pelvic Pain Syndrome
PIN	Prostatic Intraepithelial Neoplasia
PIA	Proliferative Inflammatory Atrophy
BNH	Prostatic Nodular Hyperplasia
HPC1	Hereditary Prostate Cancer gene
DRE	Digital Rectal Examination
CT	Computed Tomography scan
MRI	Magnetic Resonance Imaging
SN	Sentinel Node
e-PLND	extended Pelvic Lymph Node Dissection
FNA	Fine Needle Aspiration
PSA	Prostate Specific Antigen
NR	Nuclear Receptor
DBD	DNA-Binding Domain
AREs	Androgen Response Elements
NLS	Nuclear Localization Sequence
HATs	Histone Acetyl Transferas
HDACs	Histone De Acetylases
CK	Cytokeratin
AMACR	Alpha Methylacyl-CoA Racemace
DPX	Dextrin Plasticizer Xylene
LHRH	Luteinizing Hormone-Releasing Hormone

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