

Dedication

To my parents: " May your ceiling never fall in and those who live beneath it never fall out !"

To my inspiring small family my Daughters, son and husband.

To my teacher Ustaz Khalid Mohammed El Hassan.

To my colleague Saria , may her soul rest in peace !

Acknowledgment

My great indebtedness should stretched to all those who helped me to accomplish this work, without their great efforts exerted this thesis would have never see light.

Mounting high among those, my supervisor Dr. Hussain Gad El Karim Ahmed, who gave me a lot of his time and sincere efforts to fulfill this work.

I would like to thank my teacher Awad El Kareem Ahmed who helped me in sectioning, and my colleague Amera Mahmoud who helped me in stains preparation. Many thanks should also be given to my colleague Ehab Hamid who conducted the computer works. This acknowledgment should have see no ends without crossing at the great efforts halved between by my junior brother Seif El Din Abul Gasim in scanning the photographs, and my colleague Mohammed El Hassan El Hwaris in photographing the stained tissue sections.

At last but not the least, many thanks for all my colleagues in Suliman Salih Fiddail Medical Center and Khartoum State Laboratory Management Center, who helped me in specimens collection.

Abstract

This is a retrospective study conducted in Khartoum State, during the period from May to August 2005. The objective of this study is to investigate patients who developed amyloid deposition associated with lymphoma of different types.

Fifty specimens (biopsies) were collected from patients with different lymphoma types.

The results showed deposition of Amyloid in 22 (44%) of the different lymphoma types. Among these, 8 (16%) were Hodgkin's Lymphomas, 2(4%) were Non Hodgkin's Lymphomas, 2(4%) were Burkett's Lymphoma, 1(2%) was large Cell Lymphoma and the remaining 9(18%) were other different types of Lymphomas.

Amyloidogenic materials were found to be associated with the most forms of lymphomas. Certain types of lymphomas (Hodgkin's and Burkett's) revealed more concentrations of amyloidogenic materials than others.

Thus investigation of lymphoma patients for amyloid deposition are highly recommended.

Further advanced studies are to be implemented to disclose the relation between the amyloid and lymphoma according to the causes.

الملخص

اعدت هذه الدراسة بأثر رجعى فى ولاية الخرطوم فى الفترة ما بين مايو الى اغسطس 2005 لاختبار وجود مادة الاميلويد فى الانسجة المصابة بسرطان اللف (سرطان الغدد اللمفاوية).

تم جمع خمسين عينة (خزعة نسيجية) من مرضى مصابين بانواع مختلفة من سرطان اللف. اظهرت الدراسة ترسب مادة الاميلويد فى 22 (44%) من مختلف عينات سرطان اللف. بين هؤلاء كان هنالك 8 (16%) هودجكن، 2 (4%) غير-هودجكن، 2 (4%) سرطان لىف بيركيت، 1 (2%) سرطان اللف ذو نمط الخلايا الكبيرة، و البقية 9 (18%) من انواع مختلفة من سرطان اللف .

توصلت الدراسة الى ان مواد الاميلويد لها علاقة بغالبية أنواع سرطان اللف. بعض انواع سرطان اللف (مثل الهودجكين و اللىركيت) اظهرت وجود كمية اكبر من الاميلويد من سرطان اللف.

بناءً على ذلك فان اختبار مرض سرطان اللف لترسب الاميلويد يطلب بشدة. كما توصى الدراسة بضرورة ان ينتبه البحث العلمى فى هذا المنحى الى محاولة اظهار العلاقات بين الاميلويد و اللفوما حسب مسببات المرض.

List of Contents

Title	Page
Dedication	i
Acknowledgment	ii
Abstract	iii
Arabic Abstract	iv
List of Contents	v
List of Tables	vii
Review of Literature	
1-1 Introduction	1
1-2- Epidemiology	5
1-3- Signs and symptoms	5
1-4- Classifications of Amyloidosis	6
1-5- Primary Amyloidosis	8
1-6- Hereditary Amyloidosis	11
1-7- Other Amyloid and Disease Associations	11
1-8- Component of Amyloid	12
1-9- Pathogenesis of Amyloidosis	16
1-10- Pathology	17
1-11- Prognosis	18
1-12- Diagnosis	18
1-13- Clinical Aspects	20
1-14- Demonstration	20
-1-14-1- Congo Red	22
1-14-2- Polarizing Microscopy and Congo Red	24
1-14-3- Immunohistochemistry for Amyloid	25
1-15- causes of Lymphomas?	25
2-16- Lymphoma associated Amyloid	26
Materials and Methods	

2-1-Study Design	31
2-2- Materials	31
2-3- Sample Collection	31
2-4- Sample Processing	31
2-5- Controls	33
2-6- Statistical Method	34
Results	35
Discussion	45
Conclusion and Recommendations	47
References	48
Appendix 1	57
Appendix 2	58
Appendix 3	60

List of Tables

Title	Page
Table . 1: Age Groups	38
Table . 2: Age and gender	39
Table . 3: Age and Amyloid	40
Table .4: Age and different Lymphoma Types	41
Table .5 : Gender and Amyloid	42
Table.6: Gender and different Lymphoma Types	43
Table. 7: Amyloid and different Lymphoma Types	44