Dedication

To my parent's, because without their patience, understanding support and most of all love, the completion of this work would not have been possible.

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Abstract

This is a retrospective study conducted in Khartoum State, during the period from March to August 2009 to demonstrate the expression of cytokeratin and vimentin intermediate filament among different grades of thyroid tumor, and to find out the association between amyloidosis and thyroid cancer, on other hand to compare between congo red and metachromatic stains in demonstration of amyloid. Sixty specimens of paraffin wax were collected laboratories administration with different grade of thyroid tumor.

The result showed Cytokeratin^{MNF116} was expressed in 31 (51.7%) of different grade of thyroid tumor. Among these 10 (16.66%) samples of papillary carcinoma, 10 (16.66%) samples of multinodular goitre, and 11 (18.33%) samples of follicular adenoma.

The expression of Vimentin ^{9} found in 48 (80%), eight (13.33%) samples were follicular carcinomas, 10 (16.66%) samples papillary carcinoma, 10 (16.66%) samples were multinodular goitre, 11(18.33%) samples follicular adenoma, nine (15%) samples were hashimoto's. Amyloidogenic materials were found to be associated with the medullary carcinoma.

Thus investigation of medullary carcinoma for amyloid deposition is highly recommended.

Further advanced studies are needed to disclose the relation between the amyloid and thyroid cancer according to the causes.

From the previous results the expression of cytokeratin^{MNF116} was showed in the papillary and follicular carcinoma, while the expression of vimentin^{9} was detected only in the papillary carcinoma, also hasimoto's disease show expression for vimentin^{9}. So further studies on tumor marker that associated with thyroid tumor should b to facilitate the differentiation between different thyroid tumors.

الملخص

اعدت هذه الدراسة بأثر رجعى فى ولاية الخرطوم فى الفترة ما بين مارس الى اغسطس ٢٠٠٩ لاختيار وجود الاوسمة السرطانية (السيتوكراتين والفايمنتين ومادة الاميلويد) فى الانسجة المصابة بأنواع مختلفة من سرطانات الغدة الدرقية.

تم جمع ستين عينة قالب شمعى من من إدارة المعامل قسم الانسجة المريضة مصابة بانواع مختلفة من سرطانات الغدة الدرقية. اظهرت الدراسة عن وجود الوسم السرطانى السيتوكراتين فى ٣١ (٥١.٧%) عينة، ١٠ (١٦.٦٦%) عينة بابيلارى كارسينوما،١٠ (١٦.٦٦%) عينة مالتى نوديولار قويتر، ١١ (١٨.٣٣%) عينة فوليكيولار ادينوما.

كما اظهرت الدراسة عن وجود الوسم السرطانى الفايمنتين فى ٤٨ (٨٠%) عينة، ثمانية (١٣.٣٣%) عينة منها كانت فوليكيولار كارسينوما، ١٠ (١٦.٦٦%) عينة بابيلارى كارسينوما، ١٠ (١٦.٦٦%) عينة مالتى نوديولار قويتر، و ١١ (١٨.٣٣%) عينة فوليكيولار أدينوما، ٩ (١٥%) عينة هاشيموتوس.

ووجد ترسب مادة الاميلويد فى عينتان (٣.٣٣%) عينة من ميدالارى كارسينوما . ومن هنا توصلت الدراسة الى ان مواد الاميلويد لها علاقة بنوع بسرطان الميدالا.

بناءً على ذلك فان اختبارسرطان الغدة الدرقية لترسب الاميلويد يطلب بشدة. كما توصى الدراسة بضرورة ان ينتبه البحث العلمى فى هذا المنحى الى محاولة اظهار العلاقات بين الاميلويد وسرطان الغدة الدرقية حسب مسببات المرض.

ومما سبق أيضا فإنه قد تلاحظ وجود الوسم السرطانى سيتوكيراتين فى نوعين من سرطان الغدة الدرقية وهما الفوليكيولار والبابيلارى كارسينوما، وعدم وجود الوسم السرطانى الفايمنتين فى الفوليكيولار كارسينوما حيث انه وجد فى البابيلارى كارسينوما.

لذا توصى الدراسة بضرورة إجراء أبحاث أكثر لتأكيد هذه النتائج فى البحث عن الاوسمة السرطانية الاخرى التى لها علاقة بسرطان الغدة الدرقية وذلك للمساعدة فى كيفية التمييز بين انواعها المختلفة.

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List of abbreviations

Title	Abbreviations
FC	Follicular carcinoma
Pap	Papillary carcinoma
Med	Medullary carcinoma
FA	Follicular adenoma
MNG	Multinodular goiter
SG	Simple goiter
Has	Hashimoto's
CKMNF116	Cytokeratin^{MNF116}
V9	Vimentin [9]