

Acknowledgment

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Dedication

Dedication

To my parents

To my teachers

To my sisters

To my brothers

To my friend

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ABSTRACT

The aim of this study is to assess the tumor marker CA-125 level during radiotherapy course as well as to obtain other objectives such as the correlation between the age and ovarian cancer, stage of ovarian cancer versus tumor marker CA-125 and to show whether the ovarian cancer is predominant among obese patients or not?. The study was carried out in RICK – RIA lab and the analyzed data showed that: the common involved age by ovarian carcinoma was the age group of 30-40 years old taking a percent of 68 relative to other ages groups, and the age group of 40-50 years old was also showed considerable incidence scoring 16%.

And the correlation of A125 versus age was so insignificant ($R^2 = 0.00$) before radiotherapy course, while after radiotherapy course the result showed less significant effect of aging in the level of A125 U/ml ($R^2 = 0.42$) with minor decreasing influence of aging in the level of A125 and the correlation could be given by the following equation: $y = -0.03x + 6.8$ where y refers to level of A125 U/ml and x refers to age in years.

The result also showed that the average of A125 before radiotherapy was $134 \pm \text{St. D. } 13.3$ U/ml relative to $5.5 \pm \text{St. D. } 2.1$ U/ml after radiotherapy i.e. there was 128.5 U/ml of A125 difference which is equivalent to 367.1% relative to normal level of A125 (35 U/ml).

Also the tumor marker CA-125 increases as the cancer stage goes to advance one and for stage I, II, III and IV the average level of A125 was 41.1, 55.6, 82.5 and 143.8 U/ml respectively with a significant correlation coefficient at ($R^2 = 0.98$).

The measurement of obesity based on BMI showed that the average BMI of the patients was 28.2 indicating that most of the patients were obese i.e. carrying the risk factor of ovarian carcinogenesis.

الخلاصة

تهدف هذه الدراسة الى تقييم مستوى بروتين سرطان المبيض CA-125 خلال جلسات العلاج بالأشعة إضافة الى تحقيق بعض الأهداف مثل العلاقة بين العمر و تسرطن المبيض ، مرحلة الورم و مستوى بروتين سرطان المبيض CA-125 ، و عن ما إذا كان سرطان المبيض يسود في لנסاء ذات الوزن الزائد .

أجريت الدراسة بمعمل قياس الهرمونات المناعية بالأشعاع بمستشفى العلاج بالأشعة والطب النووي – الخرطوم ، حيث أوضحت الدراسة الآتي: أن سرطان المبيض يسود في الفئة العمرية 40-30 ، 50-40 سنة بنسب 68% و 16% على التوالي . و علاقة الارتباط بين بروتين سرطان المبيض CA-125 و العمر ضعيفة قبل العلاج بينما هناك علاقة عكسية ضعيفة بعد العلاج الأشعاعي بمعامل ارتباط عند $R^2 = 0.4$ يمكن ضبطها بالمعادلة: $y = -0.03x + 6.8$ ، حيث y تشير الى مستوى البروتين و x تشير الى العمر بالسنة . أيضا أوضحت الدراسة ان مستوى بروتين سرطان المبيض CA-125 يقل من $St. D. 13.3 \pm 134$ وحدة/مل قبل العلاج الى أقل مستوى $St. D. 2.1 \pm 5.5$ وحدة/مل بعد العلاج أي بنسبة 367.1% .

أيضا أوضحت الدراسة ان مستوى بروتين سرطان المبيض CA-125 يزداد كلما تقدمت مرحلة الورم و ساءت و ذلك من I, II, III, VI ليكون مستوى بروتين سرطان المبيض CA-125 المقابل لكل 41.1 ، 55.6 ، 82.5 ، 143.8 وحدة/مل على التوالي بمعامل ارتباط عند $R^2 = 0.98$. كما أوضح مقياس نسبة الحجم:الطول ان أغلبية المرضى يعنون من زيادة الوزن (الثمينة) بمقدار 28.2 .

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