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ثبكة المعلومات الجامعية





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التوثيق الالكتروني والميكروفيلم



نقسم بللله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأفلام قد اعدت دون آية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15-20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of 15-25c and relative humidity 20-40 %



ثبكة المعلومات الجامعية







# EVALUATION OF GROWTH HORMONE IN POLYTRANSFUSED THALASSEMIC PATIENTS WITH SHORT STATURE AND EFFECT OF L-CARNITINE TREATMENT

Thesis

Submitted for partial fulfillment of Medical Degree (M.D) in pediatrics

By

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### بسم الله الرحمن الرحيم

#### تقرير جماعى

بناء على موافقة الأستاذ الذكتور نائب رئيس الجامعة: بتاريخ ٢٠٠٢/٠٨/٠١ احتمعت اللحنة المشكلة من: -

أ • د/ أمــــــــــــــــــــــــــــــــــــ	بيعامعه القاهرة	( عن المشرفين)
أ و د/ أوسيمه السيد سليم	بجامعه عین ش <sub>سی</sub>	(ممتحن خارجي)
أ • د/ نرمين صلاح الدين محمد	بجامعه القاهرة	(ممتحن داخلی)

بقاعه الدور الثاني بالمركز الطب الوقائي لمناقث علنية لرسالة الدكتوراه في طب الأطفال

وذلك في تمام الساعة : - الحادية عشرة صباحاً

المقدمة من الطبسة / هند أحمد سمير

بعنوان :-متابعة النمو الجسمي وهرمون النمو في الأطفال المصابة بمرض أنيميا البحر المتوسط و تأثير عقار الكارنتيين

يوم الاثنين: - ٢٠٠٢/٠٩/٢٣

الملخص: - أحري هذا البحث على ثلاثون مريض بأنيميا البحر المتوسط وثلاثون آخرون يعانون من نقص النمو البنيوي وتم عمل وظائف الغدة الدرقية لجميع المرضى وتبين أن المرضى المصابون بأنيميا البحر المتوسط معدل نموهم ومعدل إفراز هرمون اننمو اقل من الذين يعانون من نقص النمو البنيوي وتبين كذلك أن ٣٣%من هؤلاء المرضى يعانون من نقص إفراز هرمون النمو و تم إعطاؤهم الكارنتيين لمده ست أشهر و بعدها تبين زيادة في إفراز نسبه هرمون النمو زيادة في نموهم الجسمي و لهذا نوصى بإعطاء هؤلاء المرضى الكارنتيين كملاح أنساسي مهم.

وترى اللحنة قبول البحث

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# Abstract

### <u>Abstract</u>

Objective: Evaluation of growth in polytransfused thalassemic patients, with short stature and effect of L-carnitine therapy.

Method: The study included 30 β-thalassemic patients with mean age 13.8±1.7( yr) and another 30 children with constitutional short stature as a control. Anthropometric measures, thyroid profile, IGF-1 and growth hormone provocation by 2 tests were done at first then follow up of all patient for 6 months without treatment then 8 patient with growth hormone deficiency were given L-carnitine for 6 months then followed up by anthropometric measures, IGF-1 and growth hormone.

twelve

**Results:**12(40%)patients had sub-clinical hypothyroidism, 10(33.3%)had growth hormone response lower than 10ng/ml in two provocation tests.

Maximum GH and growth velocity (cm and SDS) in B-thalassemic patients were found to be significantly lower while weight (SDS) and weight / height SDS were significantly higher than patients with constitutional short stature (P < 0.05). Height SDS had a significant positive correlation with estimated mature height and a significant negative correlation with Chronological age (yrs) and target height – height SDS (P < 0.05). Estimated mature height (cm) had a significant positive correlation with height SDS, target height (cm), IGF1 SDS and significant negative correlation with target height – height SDS (P < 0.05). 8 patients with growth hormone deficiency were given L-carnitine for 6 months.

After L-carnitine treatment hemoglobin level, maximum G.H, IGF1 and growth velocity (cm and SDS) were significantly higher while the number of blood transfusions in patients was significantly lower (P < 0.05). Delta changes is higher in height (SDS and cm) estimated mature height, sitting height and lower in target height — height (SDS and cm) six months after L-carnitine treatment in B-thalassemic patients with growth hormone deficiency (P < 0.05).

Conclusion: Children with B-thalassemia and short stature have a high incidence of growth hormone deficiency which appear to be important etiological factor in their growth impairment L-carnitine has a positive effect on the growth of thalassemic patients. L-carnitine has a positive effect on the growth of these children it increase GH reserve and growth rate. So we recommend the use of L-carnitine as a routine treatment in short thalassemic patient with growth hormone deficiency.