

بسم الله الرحمن الرحيم

Sudan University of Science and Technology

College of Graduate Studies



## **Study on Adenoids hypertrophy by using Plain X-ray.**

**دراسة تضخم اللحميات الانفية باستخدام الاشعة السينية**

*A Thesis Submitted for Partial Fulfillment of M.Sc. Degree in Medical  
Diagnostics Imaging*

By:

Anwar Mohieldeen Mohamed Ahmed Salim

Supervisor:

## الاية

قال تعالى:

﴿لَقَدْ جَاءَكُمْ رَسُولٌ مِّنْ أَنفُسِكُمْ عَزِيزٌ عَلَيْهِ مَا  
عَنِتُّمْ حَرِيصٌ عَلَيْكُمْ بِالْمُؤْمِنِينَ رَءُوفٌ رَّحِيمٌ



(سورة التوبة الآية: 128 )

# **Dedication**

**To:**

**Soul of My Father...**

**My Mother...**

**My wife and my kids ...**

# Acknowledgment

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# List of Abbreviations

ENT	Ear Nose and Throat.
ANR Ratio.	Adenoid Nasopharynx
A	Adenoid.
N	Nasopharynx.

# Abstract

Adenoid hypertrophy is a common disorder seen in children manifesting clinically by bilateral nasal block, snoring during sleep, mouth breathing, and difficulty in breathing during sleep and sleepapnea.

Due to non-cooperation by children for physical examination, often diagnosis is based mainly on radiological investigation.

We conducted study to evaluate the relation between clinical symptoms severity score In relation to the size of the adenoid with nasopharyngeal size.

The symptoms included for clinical severity scoring is bilateral nasal obstruction, mouth breathing, snoring during sleep, sleep apnea (Frequent awakening during sleep) and difficulty in breathing during sleep.

Each symptom was graded based on the number of days affected in a week.

Lateral x-ray Nasopharynx investigation was done for the estimation of adenoid and nasopharyngeal size. 50 patients were included in the study with 35 boys and 15 girls aged 4 to 12 years, the clinical symptoms severity score correlated well with adenoid nasopharyngeal ratio (person correlation).

The presence of statistically significant correlation between the Clinical symptoms severity score and Adenoid-nasopharynx ratio, according to the moral standards of moral significance statistical sig, all of which were less than (0.05). So significant correlation was observed between clinical severity score and adenoid nasopharynx ratio.

Clinical symptom severity score is a valuable tool for the prediction of significant adenoid hypertrophy.

## مقدمة الدراسة

إن مرض تضخم الزائدة الأنفية (الحمية) من الإعتلالات الشائعة والمنتشرة وسط الأطفال و

يشخص سريرياً بأنه انسداد انفى على الجانبين و شخير أثناء النوم بالإضافة للتنفس من

الفم مع صعوبه فى التنفس أثناء النوم قد تصل الى توقف التنفس أثناء النوم.

نسبة الى عدم تعاون الأطفال أثناء الفحص الجسدي فى عيادة الطبيب فإن التشخيص غالبا

ما يركز تماما على الفحص الإشعاعى.

لقد أجرينا دراسة استطلاعية لتقييم العلاقة ما بين درجة خطورة الأعراض السريرية

وعلاقتها بحجم الزائدة الأنفية مع حجم البلعوم.

لقياس درجة خطورة الأعراض السريرية تضمنت الدراسة الأعراض التالية:- الإنسداد الأنفي على الجانبين, التنفس من الفم أثناء النوم, الشخير أثناء النوم, توقف التنفس أثناء النوم (الإستيقاظ المتكرر أثناء النوم), صعوبة التنفس أثناء النوم..

كل عرض من الأعراض السريرية التي ذكرت أعلاه قد صنفت بناءً على عدد الايام التي يتكرر فيها العرض خلال الإِسبوع.

تم إجراء فحص البلعوم الأنفي الجانبي بالأشعة السينية لتقدير حجم الزائدة الأنفية المتضخمة والبلعوم. وقد تضمنت الدراسة 50 مريضاً منهم 35 ولداً و 15 بنتاً كلهم من الفئة العمرية (4- 12) سنة.

وقد حدد مدى ارتباط درجة خطورة الأعراض السريرية مع نسبة ضخامة حجم الزائدة الأنفية والبلعوم عن طريق حساب القيمة الاحتمالية أو ما يعرف بال (person correlation ) في علم الإحصاء.

ومن خلال نتائج الدراسة التي تتمثل في معامل الارتباط الذي كان اقل (0.05) بين كل المتغيرات اتضح ان هنالك ارتباط كبير بين مدى شدة اعراض تضخم اللحمية ونسبة تضخم اللحمية وحجم البلعوم الانفي.

تعتبر درجة خطورة الأعراض السريرية أداة مهمة للتنبؤ بمدى خطورة مرض تضخم الزائدة (الأنفية) اللحمية