بسم الله الرحمن الرحيم

(يَرْفَعِ اللَّهُ الَّذِينَ آمَنُوا مِنكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ)

(المجادلة آية 11).

Dedication

I dedicate this work to……..

My parents for their steadfast love and support

My husband and children

My brother and sisters

All people who made this work possible

Acknowledgment

First of all my thanks are due to ALMIGHTY ALLAH for giving me health and patience to complete this work.

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ABSTRACT

The present study aimed to determine the rate of detection of *legionella pneumophila*(*L. pneumophila*) among patients who presented to selected hospitals in Khartoum State with pneumonia/ chest infection.

During the period from September 2012 to September 2013 of a total of 300 patients were selected randomly among patients attending Omdurman teaching Hospital, Jafar Ibnaof Hospital, Elswedy Hospital and some health centers (Elhikmma Center, Wadnobawi Center, and special clinics) with chest infection/ pneumonia. The mean age of the patients was 36 years range. Male were more than female (55%, 45%) respectively.

Venous blood was collected from each individual under study allowed to clot and after cloting retraction, centrifuged and the serum was separated and stored until used.

The serum samples were later tested for *L.pneumophila* IgG antibodies by ELISA (Euroimmun).

DNA extraction was done on serum by (G-DEXIIb-kits) Intron Biotechnology. PCR was then performed for amplification of *mip* gene by Real Time PCR by using Real MOD^{TM} Green Real Time PCR master mix kit – Intron Biotechnology.

The overall seroprevalence of *L.pneumophila* IgG was 22.7% of the total number collected specimens. 100 were tested for *L.pneumophila* DNA by PCR and 10 (10%) were found positive.

الخلاصة

هدفت هذه الدراسة لمعرفة معدل الليجيونيلا الرئوية في وسط مرضى بعض المستشفيات المختارة في ولاية الخرطوم والذين اصابوا بالالتهاب الرئوي او الالتهاب الصدري.

في خلال الفترة مابين سبتمبر 2012 الى سبتمبر 2013 تم جمع 300 عينه عشوائية من المرضى الذين حضروا الى مستشفى ام درمان التعليمي, مستشفى جعفر بن عوف, مستشفى السويدي,(مركز الحكمه, مركز ودنوباوي وبعض العيادات الخاصة) وكانو مصابين بالالتهاب الرئوي او الصدري. وكان متوسط الاعمار 36 سنة ,ونسبة الذكور اعلى من الاناث(55%, 45%) تباعا.

تم جمع عينات الدم الوريدي من جميع الاشخاص في الدراسة وتم ترك العينات لتتجلط ثم تم فصلها بقوة الطرد المركزي وتم فصل السيرم وحفظه حتى وقت الاستخدام.

تم اختبار العينات لاحقا لمعرفة وجود الاجسام المضادة لليجونيلا الرئوية بواسطة الاليزا.

تم استخلاص الحمض النووي من عينات السيرم. ثم تم الكشف عن وجود mip جين الموجود في الليجيونيلا الرئوية.

تم اكتشاف الاجسام المضادة لليجيونيلا الرئوية بنسبة 22.7% من مجموع العينات وتم اكتشاف الحمض النووي لليجيونيلا الرئوية باستخدام تقنية البلمرة الجزيئية السريعة بنسبة (10%).

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