

Dedication

I dedicate this research to my husband

Mohammed and my daughter Retaj

My mother Aisha, father Salih,

My sister and brother

And

All my friends

Acknowledgement

First of all my thanks to allah

I would like to thank my supervisor professor Hamid Suliman Abdalla for his guidance , valuable advise , follow up , encouragement and close supervision during the planning of this study up to the preparation of the final manuscript .

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Abstract

The present study was carried out to compare the efficiency of direct microscopy , *in vitro* cultivation and direct agglutination test (DAT) for diagnosis of visceral leishmaniasis (VL) . this study was carried out in Omdurman pediatric hospital in Khartoum state between March and October 2011 , which included patients clinically suspected of VL . The number of suspected VL cases was 50 and the following was performed ;

- Bone marrow aspirates for direct microscopy and *in vitro* cultivation .
- Serum samples for DAT .

The microscopical examination of bone marrow smears revealed the presence of amastigotes In 10 (20%) cases *in vitro* cultivation of bone marrow aspirates give positive growth of *L . donovani* promastigotes in 11 (22%) case and negative in 39 (78%) of case and DAT was positive in 20 (40%) of case and negative 30(60%) of the results of DAT obtained were compared to the results of direct microscopy and *in vitro* culture of Bone marrow aspirates this was shown that DAT was more sensitive than microscopy and *in vitro* culture .

الخلاصة :

هذه الدراسة صممت لمقارنة كفاءة الفحص المجهرى المباشر والزراعة واختيار التراص المباشرة للكشف عن الليشمانيا الحشوية . هذه الدراسة اجريت فى مستشفى ام درمان للاطفال فى ولاية الخرطوم فى الفترة من مايو حتى اكتوبر ٢٠١١م . شملت هذه الدراسة المرضى المشتبه باصابتهم بالليشمانيا الحشوية سريرياً كانت عدد الحالات المشتبه باصابتها بالليشمانيا الحشوية (٥٠) حالة اخضعت جميعها للالتى :

- الرشف من نخاع العظم للفحص المجهرى المباشر والزراعة
- تحضير المصل لفحص اختبار التراص المباشر (DAT) .

الفحص المجهرى المباشر للرشف من نخاع العظم اظهر وجود (amastigotes) فى 10 (٢٠%) حالات . وزراعة الرشف من نخاع العظم اعطت نمو ايجابى ل (promastigotes) فى ١١ (٢٢%) حالة وسلبى فى ٣٩ (٦٨%) حالة . واختبار التراص المباشر اظهر نتيجة ايجابية فى ٢٠ (٤٠%) حالة وسلبية فى ٣٠ (٦٠%) حالة من الدراسة .

نتائج اختبار التراص المباشر قورنت مع نتائج الفحص المجهرى المباشر والزراعة فى الزجاج لعينات رصف نخاع العظم ، فوجد ان اختبار التراص المباشر اكثر حساسية (٤٠%) من الزراعة (٢٢%) والفحص المجهرى المباشر (٢٠%) فى الكشف عن الليشمانيا الحشوية .

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