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ABSTRACTS BOOK

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C0139 SUCCESSFUL TREATMENT OF PENTAVALENT ANTIMONIAL RESISTANT CUTANEOUS LEISHMANIASIS PATIENTS BY USE OF LUCILIA SERICATA LARVAE AND LARVAL SECRETIONS

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1 Background

Pentavalent antimony compounds (**PAC**) used as the first-line drugs for the treatment of leishmaniasis. However, drug resistance is emerging worldwide. Liposomal amphotericin B is another option for the treatment of drug-resistant *Leishmania* strains. But the cost of the liposomal amphotericin B is expensive. Thus, our research group propose *Lucilia sericata* larvae and larval secretions' biotherapy are satisfying and cost-effective alternative for the treatment of **PAC** resistant cutaneous leishmaniasis cases especially in the low-resource settings.

2 Methods

Twelve patients diagnosed Cutaneous Leishmaniasis (CL) were undergone **PAC** therapy but the therapies were unsuccessful. Seven of the patients were Syrian refugees and Turkish people residing nearby the refugee camps. Five of the patients were females, and seven of them were males. Seven of them were children aged 4-14 years and five of them were adults aged between 29-54 years. The location of the CL; seven of the patients have lesion on the face, three of the cases on the upper extremity and two of them have lesions on lower extremity. All of the lesions were sampled and cultured in N.N.N. medium and also the samples stained and checked under microscope. The first stage larvae applied onto the lesions of the five patients' arms and legs directly for 72 hours. The cases with facial lesions, the larval secretions were used. The secretions were applied to the skin lesions once daily for ten days. The larval secretions were soaked onto the surface of gauze dressings and applied to the facial lesions. After every therapy, the lesions were checked for leishmania.

3 Results

The amastigote forms were seen at the preparations but there were no growth on cultures. The amount of amastigote forms were decreased exponentially after every treatment applications. There were no amastigote forms seen of the lesions after the sixth day of the direct-larvae treatment. The secretions-applied facial lesions were cleared out of parasites after the eighth day. The patients were fully cured at the tenth day with both methods.

4 Conclusions

Leishmaniasis as a disease of poverty needs low-cost solutions. The *L. sericata* larvae and the secretions treatment are cost-effective and suitable for low-resource settings. This method is suitable to apply with great success and low complication rates. This therapy is notable for the cure of cutaneous leishmaniasis. The larvae and the secretions are natural products without any kind of toxicities and side effects.

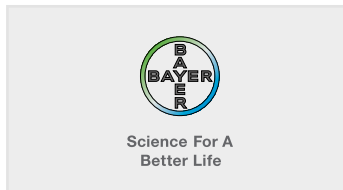
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