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**Paper Poster Session**

**Clinical parasitology and epidemiology**

**Effect of stem bark powder extracts of *Berberis vulgaris* L. on *Leishmania major* on BALB/c mice**

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**Background:**

Leishmaniasis is one of the most important diseases that transmit with sandfly. This disease present in 88 countries. Approximately 400 million people are at risk for involving, and 12 million are involved. New cases of cutaneous leishmaniasis occurring annually are about 1.5 million people(Gonzalez et al. 2008).. The usual treatment of choice for this disease has been one of the pentavalent antimonials. This treatment however have some disadvantages; first is the way of application: Hospitalization and intramuscular or intravenous injection. Second is toxicity. Third is resistance of the parasites to these drugs. Last is the high cost of the drug.

Because of such problems with pentavalent antimonials there have been efforts to assess the potential of herbal drugs effective against leishmaniasis. The most promising of the plants belong to family Berberidaceae, particularly certain species of genus *Berberis*

**Material/methods:**

**Extraction** Ten and twenty grams of dried, powdered stem bark were separately mixed with 100 mL of 70% aqueous ethanol. The mixtures were kept at room temperature for 48 hours and shaken intermittently at hourly intervals. This mixture was poured through Whatman filter paper #1 (Harborne 1998).

**Culture of *Leishmania major*:** *Leishmania major* promastigotes (strain: MHOM / SU /73 / 5ASKH) were grown in RPMI 1640 medium (Sigma, Germany) The promastigotes were harvested and centrifuged at 3,000 rpm for 10 min at 4°C. The pellet was washed 3 times in phosphate buffered saline (PBS) (Esmaeili et al. 2008).

**Results:**

The mean of Diameter of lesions after treatment of SBPE of *B. vulgaris* was found to be highest decrease in the 20% stem bark powder extract(SBPE) where (0.22 cm) was observed. Followed by 0.06 cm in 10% SBPE. But in control group, 0. 36 cm increased

**Conclusions:**

The mean diameter of lesions undergoing healing after treatment of stem bark powder extract of *B. vulgaris* showed greatest decrease in the 20% stem bark powder extract served. This was followed by 10% stem bark powder extract.

The healing rate of lesions after the treatment of stem bark powder extract of *B. vulgaris* was found to be highest in the 20% stem bark powder extract.

The partial healing rate of lesions after the treatment with 10% stem bark powder extract of *Berberis vulgaris* L. was found to be 60% and no healing was 10% but in 20% stem bark powder extract it was found respectively to be 40% and 0%.

In untreated control group, mice showed 30% partial healing (three cases), and 70 % no healing.