111. EFFECT OF NATURAL NAPHTOQUINONES IN BALB/C MICE INFECTED WITH *LEISHMANIA AMAZONENSIS* AND L. VENEZUELENSIS

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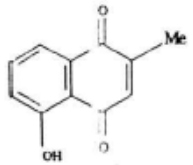
Plumbagin (1), 3,3'-biplumbagin (2) and 8,8'-biplumbagin (3) are naphtoquinones isolated by activity-directed fractionation from a Bolivian plant, *Pera benensis*, employed in folk medicine as treatment of cutaneous leishmaniasis caused by Leishmania braziliensis. BALB/C mice were infected with Leishmania mexicana or Leishmania venezuelensis and treated 24h after the parasitic infection with plumbagin (5 or 2.5 mg kg^{-1} day^{-1}), 3,3'- biplumbagin, 8,8'- biplumbagin (25 mg kg^{-1} day^{-1}) or Glucantime^{r} (200 mg kg^{-1} day^{-1}). Lesion development was the criteria employed to evaluate the inhibitory effect.

The bis-napthoquinones were less potent than Glucantime against *L. Amazonensis* and *L. venezuelensis*. Plumbagin and Glucantime each slowed the development of *L. amazonensis* and *L. venezuelensis*. Assays of a single local treatment on food-pad infection two weeks after the parasitic inoculation with *L. amazonensis* showed that 8,8'-biplumbagin (50 mg kg^{-1} d^{-1}) was as potent as Glucantime (400 $mgkg^{-1}$ d^{-1}).



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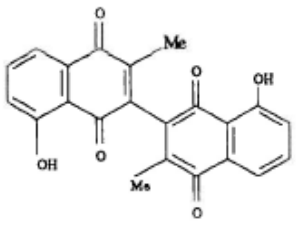

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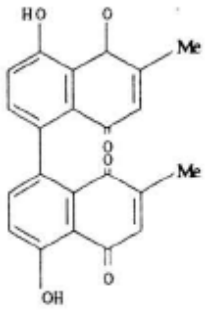

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