Seeds of Moringa oleifera have larvicidal activity on Aedes aegypti

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Moringa oleifera seeds have been used as coagulant for water treatment in Brazilian Northeast, place with high incidence of dengue fever. This paper reports hemagglutinating activity (HA) in water treated with *M. oleifera* and the possible advantage of the *M. oleifera* seed water for the dengue vector control. Water was treated with 1, 3, 6 and 15 seeds of *M. oleifera* (MoW). Lectin assay used rabbit erythrocytes. MoW was also evaluated by trypsin inhibitory activity using N- α -benzoyl-DL-arginyl- ρ -nitroanilide (BAPA). Larvicidal bioassay used Aedes aegypti. Development, mortality and morphological aspects of larvae were analyzed. MoW contains HA and was not able to inhibit trypsin. Reduction of larvae development was observed after 24, 48 and 72 h of incubation with MoW. The 4th instar larvae (L4) were only detected in control, MoW₁ and MoW₃. Significant (p<0. 0001) larval mortality was detected in the most active lectin preparation, MoW₁₅ (45%). Morphological changes in L4 incubated with MoW1 were demonstrated at light microscope level. The results obtained suggest the evaluation of *M. oleifera* seeds for the control of dengue vector. The presence of HA in MoW preparations active on A. aegypti larvae can be indicative of lectin involvement in MoW larvicidal effect.

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