Assessment of the role of nitric oxide and fractionated extracts of *Maytenus dasyclada* Mart. in acute ulcers induced by ethanol / HCl.

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**Introduction:** L-NAME (N-nitro-L-arginine methyl ester), is a substance which has the ability to block the enzyme nitric oxide synthase (NOS), responsible for the production of nitric oxide (NO). This compound may be related to different gastroproteors processes. Hexane, ethyl acetate and ethanol extracts of the leaves of *M. dasyclada* showed antiulcer activity in previous studies, thus, the aim of this study was to verify if this activity is dependent of NO.

**Experimental:** Wistar rats (200–250 g), fasted for 20 h with free access to water, were divided into groups: the control group received an intravenous injection of saline solution and the others, an injection of L-NAME, by the same route. After 30 min, all animal groups received orally the respective treatment (extracts at 250 mg/kg). After 1 h, the animals were orally administrated with 0.1 mL/10 g (animal weight) of an EtOH/HCl (60%/0.3 M) solution. These animals were sacrificed 1:30 h later and their stomachs were removed and opened along the greater curvature. Through scanner, the images were captured and analyzed using image analysis software EARP and the results were expressed as mean ± SEM and the individual data were submitted to one way variance analysis with critical range at p < 0.05 and after to Duncan's test with the same critical range.

**Results/Discussion:** The results showed that the gastroprotection of hexane and ethanol extracts was significantly reversed by pretreatment with L-NAME. The percentage of damaged area before treatment with L-NAME was 5.23 ± 2.69 for the ethanolic extract and after treatment began 226.94 ± 7.44. With the hexane extract was observed percentage of 12.05 ± 2.16 without treatment with L-NAME, and after treatment the percentage increased to 323.42 ± 10.54.

**Conclusions:** The results suggest that the antiulcer activity observed for the ethanolic extract and hexane extract of leaves of *M. dasyclada* is dependent of NO, since the activity was reversed with the use of a blocker of NO production by inhibition of the NOS enzyme.