Coffee is consumed because of this desirable flavor taste. In recent years, both coffee and coffee constituents have been increasingly studied, with respect to both potentially beneficial and potentially adverse health effects. The aim of this work was to verify the anti-inflammatory and antioxidant effects of aqueous extracts of green (AGCa) and roasted (ARCa) coffee beans (Coffea arabica L.) in animal models and DPPH radical scavenging test, respectively. Formalin test, carrageenan-induced paw edema and peritonitis were used to investigate the anti-inflammatory activity of coffee extracts. The extracts were administrated per via orally in 30, 100 and 300 mg Kg⁻¹. In the formalin test, the doses extracts reduced the licking activity only in the late phase. The inhibitory values of edema at 3 h post-carrageenan were 53 and 77% for 100 and 300 mg/kg of the extract AGCa (p<0.001, Newman-Keuls) and 41% for ARCa (300 mg/kg, p<0.001, Newman-Keuls). The leukocyte recruitment into the peritoneal cavity was inhibited by the extracts (ARCa and AGCa). In antioxidant test, the AGCa and ARCa extracts shown IC₅₀ 2.93 and 1.84 μg/ml, and standards ascorbic acid and BHT of 9.07 and 7.62 μg/ml, respectively. These results indicate that this extracts exhibits anti-inflammatory and antioxidant properties due potential of coffee-derived compounds.