

Antinociceptive effect and interaction of uncompetitive and competitive NMDA receptor antagonists upon capsaicin and paw pressure testing in normal and monoarthritic rats

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We assessed whether intrathecal administration of the uncompetitive and competitive NMDA receptor antagonists ketamine and (\pm)CPP, respectively, could produce differential modulation on chemical and mechanical nociception in normal and monoarthritic rats. In addition, the antinociceptive interaction of ketamine and (\pm)CPP on monoarthritic pain was also studied using isobolographic analysis. Monoarthritis was produced by intra-articular injection of complete Freund's adjuvant into the tibio-tarsal joint. Four weeks later, the antinociceptive effect of intrathecal administration of the drugs alone or combined was evaluated by using the intraplantar capsaicin and the paw pressure tests. Ketamine (0.1, 1, 10, 30, 100, 300 and 1000 μ g i.t.) and (\pm)CPP (0.125, 2.5, 7.5, 12.5, 25 and 50 μ g i.t.) produced significantly greater dose-dependent antinociception in the capsaicin than in the paw pressure test. Irrespective of the nociceptive test employed, both antagonists showed greater antinocicep