

Nonsteroidal antiinflammatory drugs: Effect on pyloric sphincter and duodenogastric reflux

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We have investigated the effect of nonsteroidal antiinflammatory drugs on canine pyloric sphincter pressure, mucosal potential difference (PD), and duodenogastric reflux in 5 dogs. Only intragastric aspirin at doses of 30 and 100 mg/kg caused a significant ($P < 0.05$) decrease in pyloric sphincter pressure, an increase of duodenogastric reflux, and changed the mucosal PD. Neither intravenous aspirin, intragastric phenylbutazone, or intrarectal indomethacin produced these changes. The mechanism for the aspirin effect may be mediated by local pathways related to changes in mucosal PD. We postulate that increased duodenogastric reflux may be an aggravating factor for the gastric mucosal damage caused by intragastric aspirin. © 1979 Digestive Disease Systems, Inc.