Si L M F ROMANELLO, L E A TRONCON, S ZUCOLOTO, V C BORGHI, M G GINABREDA, R B OLIVEIRA kr (INTRODUCED BY D G THOMPSON) (Faculdade de H Medicina de Ribeirao Preto, USP, Brazil) We en have previously shown that benzalkonium th chloride (BC) is effective to denervate the G myenteric plexus of the stomach causing of appreciable gastric dilation delayed gastric w emptying. We aimed to study the effect of BC ca on gastric acid secretion and plasma gastrin ie values. Young male Wistar rates were laparoto-O mised and the stomach was wrapped with 15 gauze soaked in a 2.0% BC solution (n=8) or w saline (n=12) for 30 minutes. After three fa months, volume and acidity of gastric contents cc were measured after one hour intragastric ea instillation of saline and ligation of pylorus and ga cardia. Plasma gastrin was measured by radiolo immunoassay. Intramural neurons: were tie counted by a sampling histological method. In ra all BC rats the stomach was grossly enlarged, D intramural neurons were noticeably reduced Dá (median and range: 75; 0-425/mm v 2550; CI 550-4750/mm, p<0.01), BC rats showed m higher values for gastric acid secretion (101; re 31-3708 µmol/hour v 44; 15-80 µmol/hour, (8 p<0.05) and plasma gastrin values (20; 12-30 (1pmol/l v 10; 2-26 pmol/l, p<0.01).(1 In conclusion, damage to gastric myenteric neurons by BC is associated with acid hyper-Ca secretion and hypergastrinemia possibly due to (2 chronic gastric distension or destruction of tł inhibitory neurones acting on gastric parietal g and G cells, or both.

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Effect of destruction of myenteric neurons of

rat stomach by benzalkonium chloride on gastric acid secretion and gastrin release T

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