



Effect of somatostatin on motility of human sphincter of Oddi

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Abstract

AIM: We undertook a clinical study using endoscopic manometry to investigate the effect of somatostatin on sphincter of Oddi.

METHODS: 20 subjects (7 male, 13 female) with a mean age of 51.32 ± 17.31 years (range 32-72), were referred to ERCP with no evidence of papillary or periampullary diseases. Patients were studied following a 12 hour fast. Diazepam (10 mg IM) was used exclusively for sedation and no other medication which might affect gastrointestinal motility was given. A triple lumen low compliance

system was used to record basal pressure, phasic contraction frequency, amplitude, duration, direction of wave propagation of the sphincter of Oddi and common bile duct pressure before and 1 min after intravenous administration of somatostatin in a dose of 250 μ g.

RESULTS: The mean latency period of action was 1 to 2 min and the duration ranged from 2 to 5 min. The basal pressure decreased in 16 subjects and the frequency of phasic contractions decreased in 14 subjects. The mean values of both criteria were greatly decrease ($P < 0.01$). The amplitude and duration of wave contraction and wave propagation sequence were not significantly influenced.

CONCLUSION: Somatostatin has an inhibitory effect on sphincter of Oddi motility, which may be helpful to the outflow of biliary and pancreatic juice.

Key words: Somatostatin; Motility; Sphincter of Oddi

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