The Dutch Contribution to Research and Clinical Experience with Omeprazole

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The manuscripts of the presentations given at the omeprazole introduction symposium, held in Maastricht on November 25, 1988, are published in this issue of Digestion. During this symposium entitled 'Clinical Impact of H⁺-K⁺-ATPase Inhibitors' the various clinically relevant aspects of these new compounds were discussed in detail. Since up to now clinical use of H⁺-K⁺-ATPase inhibitors has been almost exclusively restricted to the substituted benzimidazole omeprazole, most presentations will deal with this drug. Dutch investigators and clinicians have contributed considerably to the present knowledge about omeprazole. Due to this unique opportunity the organizing committee could offer a programme in which the majority of the presentations were given by Dutch investigators and clinicians who were actively involved in experimental or clinical studies with omeprazole. In fact, investigators from the Netherlands have been involved in research on the first H⁺-K⁺-ATPase inhibitor omeprazole since 1981. In 1982 the abstract

of the first presentation of a Dutch study, given at the autumn meeting of the British Society of Gastroenterology, was published [1], while in 1984 the first full papers were published in two prestigious international journals – Gastroenterology [2] and the New England Journal of Medicine [3]. From 1983 through 1988 16 original papers, 3 reviews and more than 50 abstracts on omeprazole have been published by Dutch investigators. In fact, investigators from the Netherlands were the first to publish several new important clinical findings on omeprazole, including the effect of omeprazole in the Zollinger-Ellison syndrome [3], in reflux esophagitis [4], in refractory peptic ulcers [5], in Barrett's ulcer [6], in gastric asthma [7], and in pancreatic insufficiency [8]. In addition, new physiological and pharmacological data were reported, such as the effect of omeprazole on serum pepsinogen and intrinsic factor secretion [9–11] and the effect of antacids on omeprazole absorption in normal subjects [12] and patients with Zollinger-Ellison syndrome [13]. More basically oriented research comprised the effect of omeprazole on the synthesis and secretion of pepsinogen in isolated rabbit

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gastric glands [14] and on antral regulatory peptides in the rat [15]. Furthermore, Dutch studies comparing omeprazole with histamine H_2 -receptor antagonists in duodenal ulcer patients have

recently been completed and Dutch investigators have participated in an international multicentre study comparing omeprazole and ranitidine in patients with gastric ulcer [16]. Extensive data have been collected on the short- and long-term effects of omeprazole on 24-hour esophageal pH, symptoms, endoscopic findings, serum gastrin and serum pepsinogens in patients with reflux esophagitis refractory to histamine H_2 -receptor antagonists [17–19]. Studies on the effect of intravenously administered omeprazole on gastric acid, serum gastrin and serum pepsinogen have also been reported [20, 21]. Finally, the concept of weekend therapy with omeprazole as maintenance treatment for peptic ulcer patients originates from the Netherlands and the first studies on this point have been published [22, 23].

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