Campylobacter pylori Infection in Uremic Dialyzed Patients

Eradication of the Infection by Colloidal Bismuth Subcitrate

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Dear Sir,

Following the detection of Campylobacter pylori (CP) in the gastric mucosa of patients with gastric ulceration and its recognition as an etiologic agent of gastric pathology [1], several reports highlight the microorganism’s sensitivity to antimicrobial agents [2, 3]. Colloidal bismuth subcitrate was demonstrated to be active in eradicating the organism from the gastric mucosa and capable of improving gastritis [4]. The efficacy of bismuth subcitrate may be explained either by its antimicrobial activity or by its protective effect on the gastric mucosa; moreover, the drug increases the secretion of mucus and changes its composition, thus avoiding the back-diffusion of hydrogen ions [4].

Because of the high frequency of gastroenteric symptoms in uremic patients, we looked for the presence of CP infection and evaluated the effectiveness of colloidal bismuth subcitrate therapy in our uremic population. In our uremic population [5], the incidence of CP infection is quite similar to that of the nonuremic population (table 1): recently, the CP infection was reported to be present in 60% of patients affected with nonulcer dyspepsia and in 90% of patients affected with chronic gastritis [6].

The significant presence of CP infection [5] in patients with erosive antral gastritis (EAG) suggests that this gastric disease may have a relationship with the infection. CP is very sensitive to antimicrobial therapy [7], but in our study, we used a colloidal salt of bismuth as the antimicrobial agents.

Colloidal bismuth subcitrate (De-NoJ), 600-mg tablets, were prescribed for 4 weeks twice a day half an hour before the meal to patients affected by CP infection.

Table 1. Incidence of CP infection in subjects with normal renal function and in the uremic population

Colloidal bismuth subcitrate was effective in gastric sterilization and did not show any side effect during the treatment.
In agreement with McNulty et al. [8] our findings suggest that the eradication of CP can be obtained by an oral antimicrobial agent, locally active, stable at low pH and able to penetrate the gastric mucus [8]. The improved features of EAG after therapy confirm that CP could be an etiologic factor in the development of a severe gastric pathology in uremic patients. Eventually, the antimicrobial agents can play an important role in the therapy of uremic gastropathy.

References
Bismuth Subcitrate and Campylobacter pylori Infection