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Gastroesophageal reflux disease and dental erosion correlation; a new theory from ancient time

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Dear Editor,

Roesch-Ramos et al. assessed the association of gastroesophageal reflux disease (GERD) and dental erosions in a sample of 120 Mexican participants. They showed a significant relationship between GERD and dental erosion (DE) in their study and considered this issue as an extraesophageal manifestation of GERD (1). Ignoring some spelling mistakes for abbreviation of dental erosion in abstract (ED instead of DE), there is a mismatch between findings in table II and text (Result section) where the authors claim that “there was no difference in the consumption of spicy food and alcoholic beverages” between healthy and GERD groups. As it is clear in table II, both abovementioned items showed significant difference (p = 0.03), since the statistical significance level was set as p < 0.05 (1).

Roesch-Ramos and colleagues indicated that the female/male ratio in GERD group was 2.3/1 which is in line with the predominance of female gender in GERD patients (2). On the other hand, despite a wide range of the rate of dental erosions in patients with GERD in different populations (3,4), the prevalence of DE is higher more than 3 times in comparison to our findings in a study in one of our referral university clinics (5). It may arise from social and cultural differences affecting extrinsic factors like food and beverage consumption or oral hygiene.

To our knowledge, the relationship between GERD and dental erosion reported about 80 years ago (5) and the accepted mechanism for dental erosion in GERD patients is the
reduction in tone of lower esophageal sphincter (LES) and flow of the gastric acid toward mouth leading to symptoms like halitosis (6). It is worthwhile to know that Ibn Sina (Avicenna), the great Iranian physician (7) put forward this theory in his masterpiece, Canon of Medicine, hundreds of years ago (8). Considering DE as a systemic disease manifestation similar to new literature (9), he explained the disease of stomach in detail mentioning the weakness of LES and the resulting complications such as halitosis exhaustively (8).

Although a clear relationship between GERD and DE has been shown by numerous studies (4), introducing simple preventive methods like lifestyle modifications about food and drink presented in our traditional heritage (8,10) would be an effective approach toward decreasing such common ailments.

References
