Trends of tongue colours in Chronic dyspepsia patients

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A tongue provides direct evidence for diagnosing one’s health condition based on its visual information, and it has been frequently used in Traditional East Asian Medicine clinics (TEAM). In particular, TEAM posits that the colour of tongue is highly related with digestive functions. In this study, the colour of tongue between the chronic dyspepsia patients and controlled healthy subjects were analyzed. The chronic dyspepsia patients with functional dyspepsia (n=23), gastroesophageal reflux disease (n=13), and gastritis (n=22) were recruited, and healthy subjects (n=11) were participated. Tongue images in profile view were acquired by using computerized tongue image acquisition system. The colors of the tongue body were extracted from the region in profile view of the tongue, where there was no coating. Colour differences in CIE L*a*b* colour space between the three sub-types of chronic dyspepsia patients and the healthy subjects were analyzes respectively by using multiple linear regression analysis with the factors groups, age, and sex. The variable b* was significantly lower in gastroesophageal reflux disease than that in healthy subjects (p=0.017). The variable a* was significantly lower in gastritis than that in healthy subjects (p=0.03). There was no significant difference between functional dyspepsia and healthy subjects. In gastroesophageal reflux disease, the colour of the tongue body seems to be changed to pale red colour. In gastritis, the colour of the tongue body seems to be changed to intense red colour. It is expected that the colour of the tongue body can be used for diagnosing digestive functions in healthcare.

Biography
Chang Jin Jung has completed his MSE from Kyung Hee University in South Korea. He is the Senior Researcher in Korea Institute of Oriental Medicine. He has published several papers for tongue diagnosis.

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