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Crude Extract of Potato Ameliorates Clinical Impacts of Infection with *Helicobacter pylori*: Case Study

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Abstract

Peptic ulcer disease is a problem of global concern and the infection of *Helicobacter pylori* is the main cause of this disease. Non-pharmacological approaches to improve the outcome of this disease have been reported. The purpose of this study was to report our experience in using fresh potato juice to ameliorate clinical impacts of peptic ulcer disease in three patients who were diagnosed for *Helicobacter pylori*. They reported that after daily use of fresh potato juice for 10 days to one month, their clinical symptoms including stomach-ache, and vomiting after meal intake disappeared and accordingly their quality of life indicators including eating what they want, non-stressful episodes have been improved. Quality of life has broad meanings that include what we are deficient in, or what we cannot do due to health alterations. Peptic ulcer impacts such quality life indicators.

Keywords: Peptic ulcer disease, fresh potato juice, *Helicobacter pylori*, stress.



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INTRODUCTION

The discovery of *Helicobacter pylori* (*H.pylori*) has been announced in 1983 by Marshal and Warren (1984). After that, the infection of *H. pylori* became widely known to cover more than half of the world population (Bani-Hani and Hammouri, 2001). *H. pylori* is a gram negative, spiral shaped organism that colonizes the human gastric mucosa (Al-Khatib and Abu-zaiton, 2013).

Peptic ulcer disease (PUD) includes both gastric and duodenal ulcers, and it may due to alterations in the mucosal layer lining gastrointestinal tubes. PUD is the most prevalent gastrointestinal disease (Kujawska et al., 2018).

Being infected with *Helicobacter pylori* and using anti-inflammatory drugs are considered the most popular causes of PUD (Satoh et al., 2016; Zhang et al., 2016). Moreover, *H. pylori* induces chronic inflammation that may end with gastric cancer (Marcus et al., 2013; Stewart and Wild, 2014).

The main purpose of treatment of PUD is to eradicate *H. pylori*, and it is recommended to use pharmacological and non-pharmacological approaches to improve the healing of PUD (Holtmann and Talley, 2015; Satoh et al., 2016).

The use of freshly squeezed potato juice for the treatment of gastrointestinal disorders has been reported (Vlachojannis et al., 2010). Potatoes are considered a good source of biological compounds that have therapeutic potential including phenolics, proteins, glycoalkaloids (GAs), and lectins; these compounds have antioxidant, anti-inflammatory, and anticancer activity (Visvanathan et al., 2016). The anti-inflammatory properties of potato are attributed to proteins that inhibit protease enzyme (Ruseler-van Embden et al., 2004), and antioxidants such as phenolic acids, carotenoids, or anthocyanins (Kaspar et al., 2011).

Study cases

Three male patients, with the age ranging from 52-54 years, were positive for *H. pylori* for three years. Diagnosis was made internal medicine specialist according to laboratory findings and the patients received conventional treatment for *H. pylori*. They were complaining from stomach-ache, vomiting and were not comfortable n eating due to food restrictions. From economic point of view, they paid much money searching for good treatment and following diagnostic tests. I have suggested them to take fresh potato juice following intake of their meals. They followed the advice, and a daily follow-up of them was made to evaluate their improvement. All of them reported the following: they took their ordinary meals without accompanying stomach-ache, and the feeling of vomiting. The second week of intake of fresh potato juice, they felt better, and started to intake previous meals that were not possible for them to intake such as spicy food. They

reported that their quality of life parameters were restored including disappearance of stress episodes.

DISCUSSION

We think that fresh potato juice ameliorated the impacts of *H. pylori* infection due to the properties of this juice including antioxidant, and anti-inflammatory activities (Visvanathan et al., 2016). According to this context, fresh potato juice improves the healing of PUD. Our findings are consistent with other studies including the study of Vlachojannis et al. (2010).

The findings of this study confirmed that non-pharmacological approaches to improve the healing of PUD are worth to be investigated (Holtmann and Talley, 2015; Satoh et al., 2016).

CONCLUSION

Although there are multiple pharmacological approaches to treat the PUD using modern treatments, non-pharmacological approaches are still effective and cheap.

CONFLICT OF INTEREST

The authors declare that no competing interests exist.

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