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**Title:** Helicobacter pylori infection among asymptomatic sulfur mustard induced respiratory diseases in Iranian veterans: Via C13- urea breathe test with new infrared spectroscopy, case–control study

**Authors:** Khosrow Agin MD 1, Seyed Hossein Ardehali MD2

**Abstract:** Background: Helicobacter pylori (H, Pylori) infection is one of the commonest contaminations worldwide and affects particularly in developing counties. The genus mold Aspergillus (A) is ubiquitous of the airborne saprophytic fungi, occur worldwide, and fourth leading cause of hypersensitivity respiratory disorders. The aspergillosis occurs predominantly in the lung and severity of clinical conditions probably depends mainly on the quantity and virulence of the inhaled genus A on the status of the host defense. Aspergillus fumigatus (AF) is one of a few pathogens for human from over 200 species of A and responsible over 90% of human infections. It is able to induce various pulmonary disorders such as; allergic aspergillosis, colonizing aspergillosis and invasive disease. Helicobacter pylori (H, Pylori) infection is one of the commonest contaminations in the worldwide(1) and particularly in developing counties(2-3). It founded in a few of respiratory disorders. But, the status of H, pylori infection was not known among population of Sulfur Mustard(SM) induced respiratory diseases. The purpose of the study was that detected H, pylori infection between asymptomatic SM induced respiratory diseases and to compare with healthy subjects.

**Material and methods:**
A case–control study was performed between, Sixty-nine, male, asymptomatic SM induced respiratory disease that randomly enrolled based on self-reported questionnaire in out patient clinic of chemical veterans. And ninety-one healthy subjects selected as control group. The H, pylori was detected by C13-Urea breath test via infrared spectroscopy method.

**Results:**
The mean age was 46.17±9.21 SD in the case, and 46.27±9.18 SD in the control groups, respectively. The age ranged from 35 to 70 years. The prevalence rate was founded 78.3% in the case, and 50.4% in the control groups, respectively. The chi-square test was performed between dichotomous variables of positive C13-urea breath test results in both groups. There was significant difference between both two groups (χ<0.001).

**Conclusion:**
The significant difference was observed between asymptomatic SM induced respiratory diseases with healthy subjects among Iranian veterans. Our results may be due to acquisition of infection during war time.

**Helicobacter pylori, sulfur mustard gas, C13-urea breathe test, infrared spectroscopy, respiratory disease, war, asymptomatic, male, adults, Iranian.**

**Presentation:** Poster