



## P-112 - E-CADHERIN FRAGMENTS AS TREATMENT-GUIDE FOR NON-EROSIVE ESOPHAGEAL REFLUX DISEASE (NERD)

Mohamed Alsenbesy<sup>1,2</sup>, Mina Mofid<sup>3</sup> and Abdulrahman Elsaid<sup>3</sup>

<sup>1</sup>Arabian Gulf University (AGU). <sup>2</sup>South Valley University (SVU). <sup>3</sup>South Valley University hospitals (SVU).

### Resumen

**Introduction:** Gastroesophageal reflux disease (GERD), a persistent condition affecting the digestive system, is characterized by the recurring backflow of stomach contents into the esophagus. There are substantial both direct and indirect costs as well as negative impacts on the quality of life due to this prevalent gastrointestinal condition in Egypt, which affects 24% of the population. The current study explored the demographic attributes and response to proton pump inhibitor (PPI) treatment in individuals experiencing heartburn, with an emphasis on evaluating serum N-terminal fragments of e-cadherin (CTF) and C-terminal NTF (C-NTF) as biomarkers in non-erosive esophageal reflux disease (NERD).

**Methods:** About 75 individuals who met the heartburn criteria were considered. with an average age of 44.97 ± 12.56 years, primarily female (74.66%). Pantoprazole (40 mg) was administered daily for 4 weeks to twenty-five patients, while control groups were set up to examine esophageal pathology.

**Results:** The analysis indicated a significant link between CTF positivity and heartburn ( $p < 0.05$ ), with CTF being positive in 92% of instances. PPI treatment led to substantial relief from heartburn (88% responds), accompanied by decreased serum C-NTF quantities ( $p < 0.05$ ). Sensitivity to PPI treatment differed among respondents, with a majority being highly sensitive (68.19%). Positive associations were identified between age, CTF, and C-NTF quantities ( $p < 0.05$ ), implying potential implications for understanding and managing heartburn.

**Conclusions:** This study emphasizes the need to consider demographic characteristics and biomarker measurements when treating NERD. In combination with the effectiveness of PPI therapy in symptom relief and reducing serum C-NTF levels, the strong correlation between CTF positivity and heartburn further suggests that these biomarkers may be useful in guiding treatment decisions.