#82 - QUADRUPLE THERAPIES ARE SUPERIOR TO STANDARD TRIPLE THERAPY FOR HELICOBACTER PYLORI ERADICATION. A MULTICENTER OBSERVATIONAL STUDY IN EUROPEAN AND LATIN AMERICAN COUNTRIES (LEGACY STUDY)

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Introduction: Gastric cancer is one of the most lethal malignancies worldwide. Eradication of Helicobacter pylori (H. pylori) infection, its primary cause reduces the risk of gastric cancer. There is limited information comparing eradication rates of antibiotic schemes that includes European and Latin American populations.

Objective: To compare the effectiveness of Standard Triple Therapy (STT), Quadruple non-bismuth Concomitant Therapy (QCT), and Quadruple Bismuth Therapy (QBT) in six centers in Europe and Latin America: Portugal, Spain, Chile, Mexico, and Paraguay.

Methods: This is a retrospective study based on the LEGACY registry from 2017 to 2022 in Portugal, Spain, Chile, Mexico, and Paraguay. The inclusion criteria were being diagnosed as H. pylori-positive individuals, receiving eradication treatment, and having undergone an eradication test at least one month after treatment. The outcome variable was the eradication rate, and the main independent variable was the scheme used. To compare the H. pylori treatment schemes, the statistical approach used was through Poisson multilevel multivariate regression, including sex, age, and ecological country-specific variables from available evidence, including H. pylori antibiotic resistance (clarithromycin, metronidazole, and amoxicillin), and the proportion of CYP2C19 polymorphism corresponding to extensive metabolizer for proton pump inhibitors (Table 1).

Results: The study included 873 patients, 64% females, with a mean age of 54 years (52.6-54.7). The H. pylori eradication rates were 75.2% for STT, 89.3% for QCT, and 91.3% for QBT. Both therapies (QCT-QBT) had statistically significant differences vs. STT, with an Incidence Risk Ratio (IRR) of 1.25 (p-value: <0.01) for QCT and an IRR of 1.24 (p-value: <0.01) for QBT.

Conclusions: Quadruple therapies (both with and without bismuth) are superior to STT for H. pylori eradication regardless of country-specific H. pylori antibiotic resistance and CYP2C19 polymorphism in a sample of individuals belonging to five different countries and two continents.