

ABSTRACT

TITLE: RELATIONSHIP BETWEEN OBESITY DEGREE AND *HELICOBACTER PYLORI* ERADICATION. A *POST-HOC* ANALYSIS OF TWO MULTICENTER PROSPECTIVE COHORT STUDIES

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ABSTRACT BODY:

Abstract Body: Background: obesity is a significant risk factor for *Helicobacter pylori* (*H pylori*) eradication failure. Explanations include a higher volume distribution of lipophilic antibiotics and the increased clearance of hydrophilic antimicrobial drugs that produce a lower gastric mucosa level. However little work have been done to understand the influence of the degree of obesity on the success rates of *H pylori* eradication. Our research group have been working in this topic and performed two multicenter prospective cohort studies assessing *H pylori* treatment and obesity.

The aim of the study was to evaluate weather the obesity degree influence the success rates of *H.pylori* eradication

Methods: we used the clinical data from the two multicenter, prospective, cohort studies of our research group. We analyzed 177 naïve *H pylori* patients included in both studies. All the patients were treated 14 days with a Quadruple Concomitant therapy with a proton pump inhibitor, amoxicillin, metronidazole and clarithromycin. After pooling, patients were divided in four groups according to the Body Mass Index (BMI) Group 1: pacientes with a normal BMI with dyspepsia (control group), Groups 2,3,4 obese pacientes undergoing baritatic surgery. Group 2: BMI between 35-39.9, Group 3: BMI between 40-49.9, Group 4: BMI ≥ 50 (super obese patients). Upper endoscopy and *H pylori* assessment by histology was performed at baseline and the eradication status was assessed by C13 Urea Breath Test 6-8 weeks after the end of therapy. Eradication efficacy was performed by the Intention-to-treat (ITT) analysis.

Results : successfull eradication was observed in 88% (66/75, 95% CI 0.80-0.95) of the non obese patients group compared with 69% (29/42, 95% CI 0.55-0.83) in Group 1, 56% (20/36, 95% CI 0.39-0.71) in Group 2, and 25% (6/24, 95% CI 0.07-0.42) in the super obese Group. There was a significant difference among the three groups ($P < 0.01$). The distribution of age, gender, smoking, diabetes and adverse events did not differ significantly between the two groups.

Conclusion: obesity degree influence the eradication efficacy of *H pylori* regimens in obese patients undergoing bariatric surgery. New strategies of eradication are needed principally in morbid obesity.