

# 13<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS

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### ***Helicobacter pylori* infection: Pathogenesis and therapeutic strategies**

**Introduction & Aim:** *Helicobacter pylori* (Hp) are gram-negative mobile bacilli, difficult to be cultured, and able to cause different diseases. In fact, Hp is involved in chronic active gastritis, peptic ulcer disease, gastric carcinoma and mucosa-associated lymphoid tissue lymphoma (MALT) other than in endothelial dysfunction leading to vascular diseases. Hp is increasingly difficult to treat. The treatment regimens are declining in efficacy and the therapy of this infection is bedevilled by drug-resistant strains. Aim of our research is to study a population of 50 pangastritis already undergone multiple therapies and to evaluate the eradication rates.

**Methods:** All patients were positive to UBT (Urease Breath Test) then surely infected by Hp. Three biopsies were taken for each patient and submitted to rapid urease test, culture and antibiotics susceptibility by E-test.

**Results:** Out of 50 patients, culture and susceptibility testing were obtained in 31 patients (62%) whereas in 19 (38%) no *H. pylori* growth was detected. The first group was treated following the scheme shown in the image whereas the second one was empirically treated with antibiotics never taken before or with rescue therapies. The eradication rates were 52% and 63%, respectively.

**Conclusions:** No significant difference has been seen between the two groups. Probably the higher eradication rate in patients empirically treated, where no microorganisms have been isolated, can be due to the presence of bacteria not able to grow in culture then in a less virulent or dormant phase or in a very low number to be detected. Anyway, in our study the eradication rates of these pangastritis patients undergone multiple treatments are very low. The Toronto Consensus Group (2016) has proposed new treatment strategies recommending to prolong the cure from 10 to 14 days, to use bismuth quadruple therapy containing metronidazole and tetracycline as well as various rescue therapies.

### **Biography**

Maria Teresa Mascellino has completed her MD in Rome and specialization studies in Microbiology and Infectious Diseases at Sapienza University of Rome (Italy). She works as aggregate Professor in Department of Public Health and Infectious Diseases at Sapienza University of Rome. She is responsible for the Simple Operative Unit "Microbiological analyses in the immunocompromised hosts" and tutor of students and residents in the Department of Infectious Diseases. Her main research field is "The study of some microorganisms involved in human pathology focusing on MDR microorganisms such as KPC *Klebsiella*, *Acinetobacter baumannii* and *Helicobacter pylori* as well as *Candida* and on antibiotics activity". She has published 100 papers in reputed journals and has been serving as an Editorial Board Member of repute. She is an Editor of the book *Bacterial and Mycotic Infections in Immunocompromised Hosts: Microbiological and Clinical Aspects*. She is a reviewer of many important scientific international journals and research projects. She has attended many national and international conferences as speaker presenting relevant research topics.

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