

***Helicobacter pylori* and portal hypertensive gastropathy: any new information?**

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We read with great interest the study by Sathar *et al* focused on the role of *Helicobacter pylori* (*H. pylori*) infection on portal hypertensive gastropathy (PHG) in cirrhotics [1]. Briefly, this retrospective study compared *H. pylori* seroprevalence between 70 cirrhotics with PHG (cases) and 70 matched cirrhotics without PHG (controls). The main results were that: a) the prevalence of infection was higher in cases than controls (44.3% vs. 27.1%, $P=0.034$; OR 2.134, 95% CI 1.052-4.327), and b) the prevalence of severe PHG was higher in the 31 *H.*

pylori infected compared to the 39 uninfected patients (61.3% vs. 12.8%, $P<0.001$; OR 10.767, 95% CI 3.293-35.205). Since the pathogenesis of PHG is not completely disclosed - and the role of *H. pylori* in such a field is still controversial - any new information is welcome. Unfortunately, some potential drawbacks occur in this study.

Firstly, at least two specific studies demonstrated that both sensitivity (78.6-85.4%) and specificity (38.4-52%) of serology for *H. pylori* diagnosis are disappointingly low in cirrhotics, with values distinctly lower than controls [2,3]. Therefore, serology is particularly inaccurate for *H. pylori* infection diagnosis in cirrhotics, preventing a reliable data interpretation. In addition, the overall *H. pylori* seroprevalence detected in this study (only 35.7% on 140 cirrhotics with a mean age of >50 years) appears astonishingly low when considering that the study was performed in India where *H. pylori* prevalence is extremely high in the general population [4]. The evidence that serology in cirrhotics significantly overestimates *H. pylori* infection, as pointed out in several studies [5], further questions the accuracy of such an unexpected observation.

Secondly, this study found a significantly higher *H. pylori* seroprevalence rate in cirrhotics with severe PHG (19/24, 79.2%) compared to those with mild PHG (12/46, 26.1%). Consequently, it was concluded that *H. pylori* infection is not only associated with PHG in cirrhotics, but also with more severe PHG [1]. However, *H. pylori* prevalence in literature was found to range widely from 23% to 79% and from 22% to 81% in cirrhotics with mild and severe PHG, respectively [5]. Therefore, this finding is not conclusive, and a selection bias cannot be definitely ruled out.

Thirdly and disappointingly, although the authors noted that as many as 18 (75%) cirrhotics with severe PHG were in Child-Pugh class C, a multivariate analysis was not performed to examine whether *H. pylori* actually plays an independent role. Indeed, a significant correlation between Child-Pugh class C and PHG is widely documented in the literature [6]. Therefore, the inclusion of as many as 30 Child-Pugh class C (as well as 41 cirrhotics with ascites) in the control group without PHG would suggest a remarkable selection of patients.

Based on all these considerations, the data of this study should be considered with caution, and further prospective studies, in which *H. pylori* infection is correctly diagnosed with either histology or ¹³C urea breath test [3,7], are needed.

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