

HELICOBACTER PYLORI INFECTION IN CHILDREN - IS "TEST AND TREAT" A REASONABLE POLICY?

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INTRODUCTION: To evaluate the impact of treatment based on bacterial susceptibility to antibiotics on eradication rate of *Helicobacter pylori* (Hp), compared to the efficacy of an empirical treatment regimen.

AIMS & METHODS: From 1999 to 2002, children endoscopically diagnosed with Hp infection at the SZMC Pediatric GI unit were randomly assigned to receive either omeprazole + amoxicillin + metronidazole (OAM), or omeprazole + amoxicillin + clarithromycin (OAC) for two weeks. In the majority of cases in vitro bacterial culture and susceptibility testing have been routinely performed. Hp eradication was assessed by 13C urea breath test (UBT).

RESULTS: 265 Hp positive children a follow-up UBT 4-8 weeks after the end of treatment. The rate of Hp eradication by OAM was 73.4% (n=158), eradication rate by OAC was 62.6% (n=107), p=0.078. Hp was cultured successfully in 105 patients. Ninety percent of the metronidazole-sensitive bacteria were eradicated by OAM, but only 74.4% of clarithromycin-sensitive strains were eradicated by OAC. Moreover, even 40% of metronidazole-resistant bacteria (n=19) were eradicated by OAM. None of the four cases resistant to clarithromycin in vitro benefited from the OAC treatment.

CONCLUSION: There is a trend of greater efficacy of eradication with OAM over OAC triple therapy. Although resistance negatively influences eradication, sensitivity based treatment is expected to improve eradication rate by only a small percentage. This raises the question if it might not be cost-effective to treat empirically by OAM in cases of suspected HP infection.

