

CLINICAL AUDIT OF AZITHROMYCIN-BASED THERAPY FOR HELICOBACTER PYLORI INFECTION IN A PEDIATRIC PATIENT AT PRIME CARE HOSPITAL

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Abstract

Objective: To evaluate clinical response of azithromycin-based therapy in a pediatric patient with stool antigen-confirmed *H. pylori* infection.

Methods: A single-patient clinical audit was conducted at Prime Care Hospital. An 8–10-year-old child with positive stool *H. pylori* antigen received PPI-based triple therapy including azithromycin. Treatment compliance, symptom response, adverse effects, and eradication outcome were assessed.

Results: Partial symptomatic improvement occurred, but repeat stool antigen remained positive. Subsequent guideline-based therapy achieved successful eradication.

Conclusion: Azithromycin-based therapy showed inadequate efficacy. Routine pediatric use is not advised. Standard eradication regimens recommend clarithromycin or bismuth-based therapy; however, azithromycin is occasionally used despite limited pediatric evidence.

INTRODUCTION

Helicobacter pylori (*H. pylori*) is a gram-negative bacterium, first isolated by Warren and Marshall in 1983 on the surface of the stomach¹. *H. pylori* colonize gastric mucosa and could produce urease-dependent ammonia locally, raising the stomach pH, which promotes bacterial survival and solubilizes the mucous gel to facilitate bacterial motility.² The global prevalence of *H. pylori* in children is 48.6%.³

Aim

To assess effectiveness of azithromycin-based eradication therapy in a child with stool antigen-confirmed *H. pylori* infection.

Audit Standards

- Laboratory confirmation before treatment
- PPI plus two antibiotics
- Minimum 10-day therapy
- Post-treatment eradication testing
- Target eradication ≥80%

Methodology

Design: Single-patient retrospective audit. Setting: Prime Care Hospital.

Patient: Child aged 8–10 years, stool *H. pylori* positive. Intervention: PPI + azithromycin-based triple therapy for 10 days.

Outcomes: Symptom response, adherence, adverse effects, stool antigen result.

Results

Treatment was completed without major adverse effects. Clinical improvement was incomplete and repeat stool antigen remained positive, indicating treatment failure. Alternative guideline-directed therapy resulted in negative stool antigen and symptom resolution.

Conclusion

Azithromycin failed to eradicate *H. pylori* in this child, whereas alternative therapy succeeded. Routine azithromycin use in pediatric *H. pylori* infection is discouraged.

Recommendations

1. Avoid azithromycin as first-line pediatric therapy.
2. Follow ESPGHAN/NASPGHAN guidance.
3. Always confirm eradication.
4. Prefer bismuth or susceptibility-guided regimens.

Limitations

Single patient audit limits generalizability.



References (Vancouver Style)

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