

Title: Atropine sulfate in infantile hypertrophic pyloric stenosis

Author: Utpal Kant Singh, Professor & Head, Department of Pediatrics, Katihar Medical College, Katihar, Bihar

Section: Gastroenterology

Abstract:

Aims: This prospective observational study was to evaluate the effectiveness of atropine sulfate in management of infantile hypertrophic pyloric stenosis (IHPS).

Subjects: Patients attending the hospital with complaints of persistent vomiting and later clinically and sonographically diagnosed as cases of IHPS were selected for study.

Methods: Atropine was initially administered intravenously in a dose of 0.05 mg/kg/day in six divided doses, till vomiting ceased and remained so for a period of 24 hours at a stretch and ultrasonography showed a transit time (of gastric contents through pyloric canal) of less than 1 minute. Intravenous atropine was given for a maximum of 72 hours then substituted by oral atropine at same IV dose for 3 weeks. Ultrasonographic evaluation of pyloric muscle thickness and length was done at the commencement treatment, after completion of oral treatment and at 3 and 12 months follow up. Transit time of gastric contents was measured at the commencement of intravenous treatment and then daily after the vomiting stopped for more than 24 h at a stretch.

Results: Medical treatment of IHPS with atropine was successful in 508/520 (97.7%) cases. Vomiting ceased in 48 hours in all patients with mild hypertrophy and in 7 days in all the cases with moderate hypertrophy. In all except 12 patients with severe hypertrophy, vomiting ceased in 14 days. Twelve cases continued to vomit at least once daily even after 2 weeks of IV treatment and ultimately opted out for pyloromyotomy. All the 508 medically treated children made uneventful recovery during oral therapy except 16 cases (6%) in whom vomiting recurred during the follow-up. These 16 children later responded by increasing the dose of oral atropine. All of them began to gain weight by the time oral therapy was commenced and ultrasonographic evidence of normalization of pylorus was observed in all these children 3-12 months

Conclusion: We conclude that oral atropine proved to be a simple, effective, safe, very cheap and acceptable treatment option for IHPS.

Address for correspondence:

Dr. Utpal Kant Singh

8, Rajendra Nagar, Patna, Bihar, India

e-mail: utpalkant.singh@yahoo.co.in