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Title (type in
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LETTERS)CLINICAL AND URODYNAMIC EFFECT OF OXYBUTININ
CHLORIDE IN CHILDREN WITH DETRUSOR INSTABILITY.

Aims of study: Evaluate the efficacy and safety of long term treatment with oxybutinin chloride (OC) in children with detrusor instability (DI).

Methods: In a seven year period, 90 children with no neurologic abnormalities were found to have DI on water cystometry performed because of recurrent urinary infections (39), enuresis (24) or both (27) (1). Seventy were males (mean age 9,5) and 20 females (mean age 7,9) with a mean duration of symptoms prior to urodynamics of 42 months. Females had a significantly lower age and higher rate of infections as initial complaint. Vesico-ureteral reflux (VUR) grades I to IV was found simultaneously in 24, being bilateral in 10. Voiding abnormalities were ruled out. Treatment was oral OC and chemoprophylaxis if infections were present. At least one follow up cystometry was performed on all children to assess urodynamic response. Average OC dose prescribed in males (12 mg/day) was significantly higher than in females (9,9). Mean treatment duration was 25 months and average follow-up was 42 months in the whole group and 53 in children with VUR. Side effects appeared in 20% of patients, but only 5% of patients had to withdraw from treatment.

Results. DI parameters before treatment were similar between groups with and without VUR and between males and females, except for average maximum contractin being higher in males ($p < 0.05$). Phasic instability was present in 61% (2). Seventy-five percent of patients were completely cured (stable bladders and no symptoms). Number of infections ($p < 0.005$) and enuresis score decreased significantly. In four percent of patients detrusor instability recurred after complete cure. The rest of patients were either failures of treatment (7,8%), partial improvement (6,6%), clinically cured with asymptomatic instability (8,8%), or symptomatic with stable bladders (1,1%). Girls had a non-significant greater chance of cure, and the only predicting factor for cure was volume at first contraction (higher volume, better prognosis; $p < 0.05$). Low bladder compliance without DI was found in 4 children as an intermediate phase before to complete cure. Absence or reduction of VUR was achieved in 75% of patients and 81% of units. All refluxing units who improved did so in patients with urodynamic improvement. 50% of patients with persistent VUR had persistent DI or low compliance (VUR-urodynamics correlation: 87%). Bilateral VUR was a negative prognostic factor (3). Children who improved had a statistically significant increase in capacity and compliance.

Conclusion. DI patterns are different in children and adults. OC is well tolerated and effective. Due to the low discrepancy rate, follow up studies can be omitted if there is good clinical response.

References

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