

Risperidone is highly effective in children with breath holding spells and reflex anoxic seizures: A proof-of-concept study

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Introduction

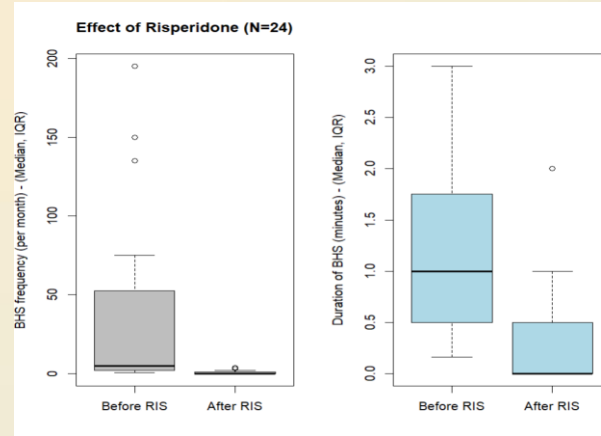
- Breath holding spells (BHS) with reflex anoxic seizures (RAS) in children are a major source of stress to parents

Methods

- Descriptive analytical study

Results

- 24 children enrolled: 13 boys
- Mean age at onset: 8.9 months (0.5-18 m)
- Mean age at presentation: 16.2 months (3-36)
- 17 children presented with complaint of BHS (70.8%), 7 children (29.2%) presented with paroxysmal events misdiagnosed as epilepsy
- 19 children (79.2%) - RAS with BHS
- All 24 children (100%) had microcytic, hypochromic anaemia
- At presentation, 8 children (29.2%) on Iron supplements, four (16.7%) on Iron and Piracetam
- Mean and median total daily dose of Risperidone was 0.32 mg and 0.25 mg (dose/kg/day: 0.032 and 0.030)



	Effect of Risperidone on BHS (n=24)			
	Before RIS	After RIS	% reduction	p Value
Mean BHS frequency per month (±2SD)	34.2 (55.02)	0.74 (1.26)	97.8	0.004
Mean duration of BHS in minutes (±2SD)	1.2 (0.85)	0.30 (0.52)	75	0.0001

Wilcoxon signed rank test

	Effect of Risperidone							
	Without Pre-Iron therapy (n=12)				With Pre-Iron Therapy (n=12)			
	Before RIS	After RIS	% reduction	p Value	Before RIS	After RIS	% reduction	p Value
Mean BHS frequency per month (±2SD)	21.85 (41.69)	0.66 (1.23)	96.9	0.092	46.58 (65.25)	0.81 (1.34)	98.2	0.023
Mean duration of BHS in minutes (±2SD)	1.34 (0.96)	0.30 (0.61)	77.6	0.004	1.06 (0.74)	0.30 (0.44)	71.6	0.005

- RIS causes significant reduction in severity of BHS
- RIS resulted in significantly reduced severity of BHS irrespective of preceding Iron therapy; Even Iron non responders had significant reduction in BHS
- No major or minor adverse events noted in any subject

Conclusions

- Risperidone is safe and highly effective for BHS and RAS in children, including Iron non-responders

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