Reflex Asystolic Syncope: associated features, impact and family history

William Whitehouse[1], Trudie Lobban[2], R Gayatri[1], Jacqueline Collier[1], Gordon Bates[3]

[1]Child Neurology, Queen's Medical Centre, University of Nottingham UK; [2]Syncope Trust And Reflex anoxic Seizures, Stratford-upon-Avon, UK; [3]Child & Adolescent Mental Health Service, Park View Clinic, Birmingham, UK

Introduction

Following the analysis of an initial questionnaire of the STARS information and family support group, a new collaborative study was set up to investigate the natural history of RAS, any apparent associated symptoms, the perceived impact on family life and the possible genetic basis.

Methods

The STARS membership was approached and asked to complete and return a short self-report questionnaire.

Parents of affected children were asked to recruit a family friend: a child of the same age and sex without a history of fits or faints to act as a control. The parents or carers of this child also completed a questionnaire.

The data was anonymised and analysed using the SPSS 10 statistical package.

Fisher's Exact (2-sided test) and Student's t-test (2-tailed) were used to assess differences between the subject and control groups.

Results

Respondents:

292/650 (45%) returned

239/292 respondents <17 years of age

90/239 (37%) were male

Mean age 7.9 years (0.25-16.8 years)

Diagnosis was made by:

Paediatric Cardiologist	3%
Paediatric Neurologist	12%
General Paediatrician	65%
General Practitioner	8%
Non-medical	12%

Subjects	Controls	
292/650 (45%) returned	151 returned	
239/292 < 17 years	130/151 < 17 years (54%)	
90/239 (37%) male	52/130 (40%) male	NS
7.9 years (0.25-16.8)	7.5 years (0.4-16.9)	NS

Associated symptoms

	Subjects (239)	Controls (130)	
leg pains	49%	18%	p<0.001
chest pains	23%	5%	p<0.001
night terrors	37%	11%	p<0.001
hyperactivity	26%	6%	p<0.001
behaviour	26%	5%	p<0.001
clumsiness	20%	3%	p<0.001
"allergies"	32%	22%	NS
easy blushing	21%	11%	NS

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Perceived family impact

parents relationship	27%
parenting	43%
parents with sibs	23%
sibs behaviour	22%
parents with others	37%
affected child with others	20%

Reported family history

with 1st degree relatives with	Subjects (239)	Controls (130)	
faints	34%	8.5%	p<0.001
needle / injury faints	19%	6.2%	p=0.001
pregnancy faints	18%	3.1%	p<0.001
febrile convulsions	9%	4.6%	NS
epilepsy	4%	4.6%	NS

Conclusions

RAS impact on family relationships, are associated with other developmental & neurological symptoms.

RAS appear to co-segregate in families who report fainting, particularly in 1st degree relatives.

Future work

We are planning a hospital out-patient clinic survey and detailed QOL and psycho-social analyses comparing children with RAS to well children, and to children with epilepsy. More detailed genetic analyses including segregation analysis and possibly molecular genetic analysis is planned.