

ARE YOU CONSIDERING IIH WHEN EVALUATING A PATIENT WITH OBESITY?

L Apperley¹ R Kumar² S Senniappan¹

¹ Department of Paediatric Endocrinology, Alder Hey Children's Hospital, UK

² Department of Paediatric Neurology, Alder Hey Children's Hospital, UK

INTRODUCTION

- Obesity is a recognised risk factor for raised intracranial pressure in the adult population
- Remains under-recognised in children and young people
- Pathophysiology between raised intracranial pressure and obesity remains unclear

AIM

- To investigate the association between idiopathic intracranial hypertension (IIH) and obesity in children and young people

METHOD

- Patients diagnosed with IIH by neurology team at a tertiary children's hospital over a two-year period
- Data included:
 - Growth parameters
 - Presentation
 - Investigations performed
 - Management

RESULTS

Parameters	Number of patients (n=18)
Male (%)	7 (38.9)
Mean age yrs (SD)	11 (± 3.3)
Age range yrs	6-15
Mean BMI kg/m ² (SD)	30.3 (± 12.3)
BMI range kg/m ²	13.9-58.2
Mean BMI SDS	+2.5
BMI SDS range	-1.24 - +4.46

Presentation	Number of patients n=18 (%)
Headaches and eye signs	12 (66.6)
Headaches only	2 (11.1)
Asymptomatic	3 (16.7) <i>*all had BMI SDS >2</i>
Self-injurious behaviour	1 (5.6)

- 60% of ≤12 years had BMI SDS > 2
- 87.5% of > 12 years had BMI SDS >2
- 81.8% of female patients had BMI SDS >2
- Eye signs included visual disturbance (blurred vision, diplopia and black spots) or ophthalmology signs
- Short-term surgical intervention: 1. external ventricular drain; 2. lumbar drain
- Long-term surgical intervention: 1. ventriculoperitoneal shunt; 2. ventriculoatrial shunt

Lumbar puncture location	Number of patients n=18 (%)
On neurology Ward <i>With no or mild sedation</i>	7 (38.9)
In theatre	10 (55.6) <i>* 9 (50) needed general anaesthetic</i>
In radiology <i>Under local anaesthetic</i>	1 (5.6)

Management	Number of patients n=18 (%)
Medical	15 (83.3)
<i>Acetazolamide</i>	11 (61.1)
<i>Topiramate</i>	4 (22.2)
Surgical	4 (22.2)
<i>Short term (then went onto meds)</i>	2 (11.1)
<i>Long-term</i>	2 (11.1)
No treatment	1 (5.6)

CONCLUSIONS

- Clear link between IIH and obesity
- Females more likely to develop IIH compared to males
- Awareness about this association needs to be raised
- Early identification and management is necessary to avoid permanent visual loss

ABBREVIATIONS

BMI	Body mass index
IIH	Idiopathic intracranial hypertension
SDS	Standard deviation score

CONTACT INFORMATION

Dr Louise Apperley
l.apperley@nhs.net

Alder Hey Children's 
NHS Foundation Trust

