

Introduction

Microcephaly is a descriptive term that refers to a cranium that is significantly smaller than the standard for the individual’s age and gender. Microcephaly is an important health condition that might be facing general pediatricians. The availability of evidence based practice parameters for the diagnostic workup of microcephaly enables the pediatricians to early detect and intervene rapidly and effectively for high risk infants.

Aim of the work

Study the clinical and radiological characteristics of a cohort of children with microcephaly attending Neurology outpatient clinic at Alexandria University Children's Hospital (AUCH).

Patients and Methods

This was a Cross sectional observational study conducted in Pediatric Neurology outpatient clinic (Semoha) of AUCH.

The study was conducted on 50 children. Clinical assessment form was designed specifically for the study. The files of included children were revised and their clinical and radiological data was collected.

Results

Table1: Distribution of the studied cases according to their associated neurological conditions (n=50)

Associated conditions	No.	%
Epilepsy		
No	17	34.0
Yes	33	66.0
GTC	18	36.0
Myoclonic seizures	6	12.0
Tonic convulsions	2	4.0
Focal seizures	10	20.0
Infantile spasm	2	4.0
Non motor focal seizures	1	2.0
Behavioral problems		
No	33	66.0
Yes	17	34.0
Autism	5	10.0
ADHD	5	10.0
Aggressive behavior	3	6.0
Social isolation	1	2.0
Excessive crying at night	2	4.0
Hyperactivity,	2	4.0
Violence, cruelty to animals	1	2.0
Severe irritability	1	2.0
Self injurious behavior.	2	4.0
Hyperphagia	2	4.0

GTC: Generalized Tonic Clonic ADHD: Attention Deficit Hyperactive Disorder

Table 2: Distribution of the studied cases according to their imaging results; secondary microcephaly (n=23)

	No.	%
Post hypoxic ischemic encephalopathy (HIE)	12	52.1
Presumed perinatal stroke	3	13
Post meningitic	1	4.3
Unknown cause	7	30.4

Table 3: Distribution of the studied cases according to their imaging results; primary microcephaly (n=27)

	No.	%
Presumed Genetic etiology	16	59.2
Congenital brain anomalies	14	87.5
Inborn error of metabolism	2	12.5
Craniosynostosis	2	7.4
Unknown cause	9	33.3
Non-specific brain findings	5	55.55
Normal brain imaging	4	44.44

Conclusion

- 1. Microcephaly is a significant risk factor for epilepsy. Children with microcephaly are more likely to have epilepsy, particularly the generalized tonic clonic form.
- 2. Microcephaly can be associated with a large critical spectrum of behavioral problems.
- 3. Neuroimaging is essential in identifying structural causes in the evaluation of a child with microcephaly.