

**Congenital CNS Malformations: frequency, clinical,  
and radiological manifestations in Pediatric  
Neurology Unit, Cairo University.**

Thesis

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By

**Ahmed Anter Ahmed**

M.B., B.CH.

Faculty of medicine, Cairo University

supervisors

**Prof. Dr. Lobna Abd EL Gwad Mansour**

Head of pediatric Neurology Department,

Faculty of Medicine, Cairo University

**Ass. Prof. Dr. Ashraf Fawzy Kame**

Assistant. Professor of Pediatrics,

National Research Center.

**Dr. Marian Yousry Fahmy**

Lecturer of Pediatrics,

Faculty of Medicine, Cairo University

Faculty of medicine

Cairo University

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### **List of Abbreviations**

AED:	Antiepileptic drugs
CNS:	Central nervous system
CP:	Cerebral palsy
CS:	Caesarian section
CT:	Computed tomography
DCC:	Dysgenesis of corpus callosum
ECHO:	Echocardiography
EEG:	Electroencephalography
FCD:	Focal cortical dysplasia
HPE:	Holoprocencephaly
LCNS:	Linear cutaneous nevus syndrome
LMNL:	lower motor neuron lesion
MRI:	Magnetic resonance imaging
MCD:	Malformations of cortical development
NCS:	neurocutaneous syndromes
NVD:	Normal vaginal delivery
PMG:	Polymicrogyria
SWS:	Sturge Weber syndrome
TS:	Tuberous sclerosis
UMNL:	upper motor neuron lesion

**Congenital CNS Malformations: frequency, clinical, and radiological manifestations in Pediatric Neurology Unit, Cairo University, Ahmed Anter Ahmed, supervisors: Prof. Dr. Lobna Abd EL Gwad Mansour, Head of pediatric Neurology Department, Faculty of Medicine, Cairo University, Dr. Nagwa Abd Allah Mahmoud, Head of pediatric Department, National Research Center, Ass. Prof. Dr. Ashraf Fawzy Kamel, National Research Center, Dr. Marian Yousry Fahmy, Faculty of Medicine, Cairo University; 2009.**

### **Abstract**

**Background:** Central nervous system (CNS) malformations represent important factor of morbidity and mortality in children. The aim of the study was to determine the frequency, type and clinical features of CNS malformations in children who were attended the outpatient clinic **Methods:** The study included 3280 patients complaining of different neurological disorders attended the outpatient clinic over 3 months. Congenital CNS malformations were diagnosed in 33 cases and they subjected to; clinical examination, EEG, MRI. **Results:** The study revealed; seizures in (58%), delayed milestones in (75%), limbs weakness in (36%), macrocephaly in (9%), microcephaly in (6%), dysmorphic features in (36%), limb deformity in (15%). Regarding type of malformations there were; (12%) lissencephaly, (9%) tuberous sclerosis, (12%) Dandy Walker, (9%) Arnold Chiari, (3%) polymicrogyria, (48%) corpus callosum malformations, (3%) holoprocencephaly, (6%) pachygyria, (3%) heterotopias, (3%) vermin hypoplasia, (6%) encephalocele, (3%) anencephaly, (3%) cortical dysplasia with schizencephaly, and (3%) Sturge Weber syndrome. **Conclusion:** This study concluded that frequency of congenital CNS malformations is (1,006%), congenital CNS malformations should be suspected in any patients presenting with neurological symptoms especially during first year of life, and complete diagnosis depends on both clinical and MRI finding.

(Key Words: EEG, MRI, and Congenital CNS Malformations).