Retrospective Outcome of Pediatric Neurology Outpatient Clinic In Bab Al-sharyea University Hospital

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ABSTRACT

Background: *Neurological disorders in children are common occurrence in clinical practice. The disorders account for more than 20% of the world's disease burden with great majority of people affected living in Africa. The clinical manifestations of neurological disorders may progress and get worst over time.*

Objectives*: We aimed to demonstrate the patterns of pediatric neuropsychiatric disorders in a sample of Egyptian children at the Pediatric Neurology Outpatient Clinic in Bab-AL-Sharyea University Hospital &The management outcome of different neurologic diseases.*

Patients and Methods: *This study composed of two parts, the first part is a retrospective study included 2944 children with documented neurological diseases, this children were attended Outpatient Clinic of Pediatric Neurology at Bab Al-Sharyea University hospital from 2011 to 2017, and the second part is longitudinal study (follow up study) to follow up outcome of treatment of 50 cases, these cases were selected during the period from July 2017 till January 2018 from Outpatient clinic of Pediatric Neurology at Bab Al-Sharyea University hospital. History taking complete clinical examination, and laboratory investigations were registered.*

Results: *The Results showed that neuropsychiatric disorders in male (63.2%) was higher than in female (36.8%) , the most common age group of the studied patients was among (6 - < 12 years) in 39.4%, epilepsy and other paroxysmal disorders were the commonest neurologic disorders accounting for (21.7%) of cases followed by cerebral palsy representing (16.2%) of cases. The study shows positive relation between epilepsy and CP in which epilepsy was found in (60.5%) of CP children. The study shows that most common psychiatric disorders was autism which occurred in (45%) of cases. The study shows that follow up of 50 cases after 6 months from start of treatment revealed that: 15 cases (30%) were cured, 17 cases (34%) were improved, 12 cases (24%) with partial improvement and 6 cases (12%) with no improvement.*

Conclusion: *Neuropsychiatric disorders was frequent among children. Neuropsychiatric disorders was frequent in males than females. Early diagnosis of neurological disorders was associated with a good prognosis.*

Key words: *Pediatric Neurology, Outpatient Clinic, Outcome.*

INTRODUCTION

Pediatric neurological disorders in developing countries are not only expensive but also are very challenging. This is due to its chronicity, late presentation and unavailability of modern diagnostic facilities in many of these developing countries. Lack of the modern technology and manpower contribute significantly to increased morbidity and mortality **(Frank and Alikor, 2011)**.

Empirical observation suggest that the general attitude of parents of children with chronic illnesses such as neurological disorders in developing countries is to shop from one doctor to another in search of a cure or solution , this gives room for frustration as they usually end up being treated by non-specialist **(singhal, 2011)**.

In more developed countries, advances in diagnostic techniques have aided the characterization and definition of diseases. In addition, application of recent therapeutic measures has resulted in significantly improved outcome. The studies have reported a high disease burden of neurological diseases among children. The information from some studies was generated from door to door surveys. There appears to be different patterns of neurological diseases in different settings **(Mathers et al., 2006)**.

The commonest disorders are epilepsy, cerebral palsy, post febrile seizures, auditory and communication disorders **(Mungʾala-Odera et al., 2006)**.

The disorders account for more than 20% of the world's disease burden with great majority of people affected living in Africa **(Obi and Sykes, 2011)**.

AIM OF WORK

We aimed Demonstrate the patterns of pediatric neuropsychiatric disorders in a sample of Egyptian children at the Pediatric Neurology Outpatient Clinic in Bab-AL-Sharyea University Hospital &The management outcome of different neurologic diseases.

PATIENT AND METHODS

This study composed of two parts, the first part is a retrospective study included 2944 children with documented neurological diseases, this children were attended Outpatient Clinic of Pediatric Neurology at Bab Al-Sharyea University hospital from 2011 to 2017, and the second part is longitudinal study (follow up study) to follow up outcome of treatment of 50 cases, these cases

were selected during the period from July 2017 till January 2018 from Outpatient clinic of Pediatric Neurology at Bab Al-Sharyea University hospital. History taking, complete clinical examination, and laboratory investigations were registered.

Inclusion criteria:

- All patients who attended the Outpatient Neurology Clinic during the study period.
- Age: from one day to 18 years.
- Regular follow up of 50 cases were selected during the period from July 2017 till January 2018.

Exclusion criteria:

- Poor compliance with drugs.
- Age out of the age group (one day to18 years).

Ethical Consideration:

1- Approval of ethical committee department, Faculty of medicine, Al-azhar University.

2- Written consent from the parents of the patients.

3- No conflict of interest regarding the study and publication.

4- The patients have the right to withdraw from the study at any time.

5- All the obtained data are confidential and the patients has the right to keep them.

6- The author decline that there is no any financial conflict regarding the research and publication.

PLAN OF THE STUDY

All patients were subjected to the following:

A- Detailed medical and neurological history:

The history taking included:

1- Personal history.

2- Prenatal, natal and postnatal history.

3- Family history: This was constructed to state consanguinity and similar condition in siblings or other relatives and to detect any hereditary disorders.

4- Developmental history. (Milestones of physical and mental development).

B-Full general and neurological examinations:

1- General Examination s:

Posture, Facies (e.g. cranial abnormalities in size and shape), Shape of the head, Shape of the nose, Position and slanting of the eye, Anthropometry: included weight, height, and head

circumference, Upper and lower limbs: length, creases of hands, Skin, hair and nails, sex organs, Clinical examination of heart, chest, and abdomen.

2-Neurological examinations:

Mental state, Speech, Cranial nerves, Motor system Coordination, Sensory system, Neck and back examination for skeletal deformity, congenital disorders and tenderness, and Gait.

Statistical Analysis:

The data were collected, tabulated, and analyzed by SPSS (Statistical Package for Social Science) computer software program version 22.

Two types of statistics were done:

• Descriptive statistics {e.g. percentage (%), mean (x) and standard deviation (SD)},

• Analytical statistics: which include the following tests:

1. Chi-square test (x2): was used to study statistical significance between two qualitative variables.
2. P-value of < 0.05 was considered statistically significant.

RESULTS

Table (1): The age and sex distribution of the studied patients

The variable	(n = 2944)	
	No.	%
Age: (years)		
< 3	**757**	**25.7**
3 - <6	**910**	**30.9**
6 - <12	**1159**	**39.4**
12 - <18	**118**	**4.0**
Mean ± SD (month)	**66 ± 40.6**	
Range (month)	**0.6 – 196**	
Sex :		
Male	**1860**	**63.2**
Female	**1084**	**36.8**

This table shows that the most common age group of the studied patients was among (6 - < 12 years) in 39.4%, on the other hand the low percent (4.0%) of the cases was among age group (12 - < 18 years). Regarding to sex males represent (63.2%) while females were (36.8%).

The age of studied patients ranged from 0.6 – 196 months.

Table (2): Pattern of general neuropsychiatric disorders among the studied patients

The disorder	(n =2944)	
	No.	%
Neurologic disorders	2123	72.1
Psychiatric disorders	510	17.3
Difficult learning disorders	311	10.6

This table shows that, presented children were classified into 3 major groups: Neurologic disorders accounted for 2123 cases (72.1%), psychiatric disorders accounted for 510 cases (17.3%) and difficult learning disorders accounted for 311 cases (10.6%).

Table (3): Pattern of neurological disorders among the studied patients

The disorders	(n = 2123)	
	No.	%
Epilepsy and other paroxysmal disorders	459	21.7
Ccerebral palsy	344	16.2
Chromosomal disorders	296	13.9
CNS infection	32	1.5
Congenital disorders	169	7.7
Delayed development	204	9.6
Cerebrovascular disorders	106	5.1
Mental retardation	157	7.4
Headaches	44	2.1
Hereditary disorders	33	1.6
White matter disorders	34	1.7
Neuromuscular disorders	55	2.6
Miscellaneous	190	8.9
Total	2123	100

This table shows that epilepsy and other paroxysmal disorders were the commonest neurologic disorders accounting for about (21.7%) of cases. The second common neurologic disorder was cerebral palsy representing (16.2%) of cases. The least common neurological disorders was CNS

infections representing (1.5%) of cases.

Table (4): Classification of epilepsy according to age groups of the studied patients

Types of epileptic seizures		(years) The age groups								X^2	P value
		<3 y		3 - < 6y		6 - <12y		12 - <18y			
	Total No.	No	%	No	%	No	%	No	%		
Absence seizures	51	10	6.0	12	9.5	25	17.2	4	18.2	93.3	0.0*
Atonic fits	31	15	9.0	12	9.5	4	2.8	0	0.0		
Breath holding spells	47	32	19.3	10	7.9	5	3.4	0	0.0		
Complex partial seizures	10	8	4.8	2	1.6	0	0.0	0	0.0		
Febrile complex seizures	34	14	8.4	9	7.1	8	5.5	3	13.6		
Focal fits with secondary generalization	23	11	6.6	6	4.8	6	4.1	0	0.0		
Focal seizures	23	8	4.8	10	7.9	5	3.4	0	0.0		
Generalized tonic colonic seizures	152	42	25.3	42	33.3	57	39.3	11	50.0		
Generalized tonic seizures	17	5	3.0	4	3.2	7	4.8	1	4.5		
Infantile spasm	11	9	5.4	1	0.8	1	0.7	0	0.0		
Masturbation	11	5	3.0	4	3.2	2	1.4	0	0.0		
Myoclonic Seizures	11	3	1.8	3	2.4	4	2.8	1	4.5		
Night time seizures	6	2	1.2	2	1.6	2	1.4	0	0.0		
Psycho motor Epilepsy	32	2	1.2	9	7.1	19	13.1	2	9.1		
TOTAL	459	166	100	126	100	145	100	22	100		

This table shows that a total of 459 patient children were diagnosed as having epilepsy. The predominant type of seizures was generalized tonic colonic seizures (GTCS) occurred in about one third of cases and night time seizures

occurred in (1.3%) of cases was the least common type.

Regarding to the type of epilepsy in different age groups, this table revealed that: At age (< 3 years) about one fourth was GTCS and the least common was night time seizures (1.2%). At age (3 - < 6 years) about one third was GTCS and the least common was infantile spasm (0.8%). At age (6 - < 12 years) the predominant type was GTCS (39.3%) and no patients with complex partial seizures. At age (12 - < 18 years) one half was GTCS and no patients with atonic fits and night time seizures.

There was a statistical significant difference between different types of epilepsy regarding to the age groups of studied patients.

Table (5): Classification of cerebral palsy according to age groups of the studied patients

Diagnosis	total N.	(years) The age groups								X^2	P value
		< 3 y		3 - <6 y		6 - <12y		12-<18y			
		No	%	No	%	No	%	No	%		
Ataxic CP	**7**	**2**	**1.3**	**3**	**2.8**	**1**	**1.4**	**1**	**12.5**	**81.2**	**0.0 ***
Atonic diplegic CP	**38**	**36**	**23.2**	**1**	**0.9**	**1**	**1.4**	**0**	**0.0**		
Dystonic CP	**12**	**10**	**6.5**	**2**	**1.9**	**0**	**0.0**	**0**	**0.0**		
Hemiplegia CP	**40**	**16**	**10.3**	**16**	**15.0**	**8**	**10.8**	**0**	**0.0**		
Hypotonic CP	**24**	**13**	**8.4**	**3**	**2.8**	**6**	**8.1**	**2**	**25.0**		
Mixed CP	**55**	**30**	**19.4**	**15**	**14.0**	**10**	**13.5**	**0**	**0.0**		
Spastic Quadriplegia CP	**168**	**48**	**31.0**	**67**	**62.6**	**48**	**64.9**	**5**	**62.5**		
TOTAL	**344**	**155**	**100**	**107**	**100**	**74**	**100**	**8**	**100**		

This table shows that a total of 344 patient children were diagnosed as having cerebral palsy. The predominant type of CP was spastic quadriplegia which occurred in about one half of cases and ataxic type occurred in (2%) of cases was the least common type.

Regarding the types of CP in the different age groups this table

revealed that: At age (< 3 years) the predominant type was spastic quadriplegia (31%) and the least type was ataxic type (1.3%). At age of (3 - < 6 years) the predominant type was quadriplegic type (62.6%) and the least type was atonic diplegia (0.9%). At age of (6 - < 12 years) the predominant type was quadriplegic type (64.9%) and no patients with dystonic cp. At age of (12 - < 18 years) the predominant type was quadriplegic type (62.5%) and no patients in atonic type, dystonic type, hemiplegic type and mixed type.

There was a statistical significant difference between different types of cerebral palsy regarding to the age groups of studied patients.

Table (6): Relation between cerebral palsy and epilepsy

Cerebral palsy	Epileptic (n = 208)		Non epileptic (n = 136)		X^2	P value
	No	%	No	%		
Spastic quadriplegia	120	34.9	48	13.9	15.697	0.015*
Mixed CP	42	12.2	13	3.8		
Dystonic CP	6	1.7	6	1.7		
Hemiplegia CP	16	4.6	24	7		
Hypotonic CP	14	4.1	10	2.9		
Atonic diplegia	5	1.5	33	9.6		
Ataxic CP	5	1.5	2	0.6		

This table shows that, epilepsy was found in (60.5%) of CP children. Epilepsy was predominant in quadriplegic type (34.9%) and less frequent in diplegic and ataxic types (1.5%) for each.

There was a statistical significant difference between different types of cerebral palsy regarding to epilepsy.

Table (7): Types of psychiatric disorders in different age groups of studied patients

Diagnosis	No. =	The age groups (years)								^2X	P-value
		<3 y		3- <6y		6-<12y		12-<18y			
		No	%	No	%	No	%	No	%		
Aggressive	74	14	17.5	34	14.6	25	13.3	1	11.1	100.9	0.0*
Antisocial	14	2	2.5	4	1.7	8	4.3	0	0.0		
Asperger	38	1	1.3	15	6.4	19	10.1	3	33.3		
ADHD	17	0	0.0	8	3.4	9	4.8	0	0.0		
Autism	229	46	57.5	121	51.9	62	33.0	0	0.0		
Autistic features	44	11	13.8	20	8.6	12	6.4	1	11.1		
Behavioral disorder	16	3	3.8	10	4.3	2	1.1	1	11.1		
Conversion disorder	8	1	1.3	2	0.9	5	2.7	0	0.0		
Primary stuttering	31	1	1.3	11	4.7	18	9.6	1	11.1		
Psychosomatic disorder	10	0	0.0	0	0.0	9	4.8	1	11.1		
Resistant	13	1	1.3	7	3.0	5	2.7	0	0.0		
Secondry stuttering	9	0	0.0	1	0.4	7	3.7	1	11.1		
Tics	7	0	0.0	0	0.0	7	3.7	0	0.0		
TOTAL	510	80	100	233	100	188	100	9	100		

This table shows the most common psychiatric disorders was autism which occurred in (45%) of cases and the least common psychiatric disorders was tics which occurred in (1.3%) of cases.

Regarding the frequency of psychiatric disorders in the different age groups this table revealed that: At age (< 3 years) more than one half of cases was autism and no patients with ADHD and psychosomatic disorders. At age of (3 - < 6 years) about one half of cases was autism and no patients with psychosomatic disorders and tics. At age of (6 - < 12 years) about one third of cases was autism and the least common type was behavioral disorder (1.1%) of cases. At age of (12 - < 18 years) the most common type was Asperger (33.3%) and no patients with autism, ADHD, antisocial and tics.

There was a statistical significant difference between

different types of psychiatric disorders regarding to the age groups of studied patients.

Table (8): Six months follow up for the outcome of treatment (sample of cases)

The outcome	n =	%
Cured	**15**	**30.0**
Improved	**17**	**34.0**
Partial improvement	**12**	**24.0**
No improvement	**6**	**12.0**
Total	**50**	**100.0**

- cured = 100% improvement
- Improved = 50% improvement
- Partial improvement = 25% improvement
- No improvement = stationary course

This table shows that, follow up of 50 cases after 6 month from start of treatment revealed that: 15 cases (30%) were cured, 17 cases (34%) were improved, 12 cases (24%) with Partial improvement and 6 cases (12%) with no improvement.

Table (9): The distribution of management outcome with diagnosis (follow up cases)

The diagnosis		The management outcome								X^2	P-value
		Cured		Improved		Partial improvement		No improvement			
	Total No.	No	%	No	%	No	%	No	%		
Autism	**5**	**0**	**0**	**0**	**0**	**3**	**25**	**2**	**33.3**	**4.04**	**0.54**
Cerebral palsy	**17**	**0**	**0**	**6**	**35.3**	**7**	**58.1**	**4**	**66.7**		
Epilepsy	**22**	**14**	**93.3**	**7**	**41.2**	**1**	**8.3**	**0**	**0**		
Minimal brain dysfunction	**2**	**0**	**0**	**2**	**11.7**	**0**	**0**	**0**	**0**		
Neural tube defects	**2**	**0**	**0**	**1**	**5.9**	**1**	**8.3**	**0**	**0**		
Rt. bell's palsy	**2**	**1**	**6.7**	**1**	**5.9**	**0**	**0**	**0**	**0**		
TOTAL	**50**	**15**	**100**	**17**	**100**	**12**	**100**	**6**	**100**		

This table shows that, after 6 months follow up of 50 cases (sample of cases) were revealed that: Epilepsy was found in 22 cases (14 cases were cured , 7 cases were improved and 1 case with Partial improvement) , cerebral palsy was found in 17 cases (6 cases were improved , 7 cases with Partial improvement and 4 cases with no improvement) , autism was found in 5 cases (3 cases with Partial improvement and 2 cases with no improvement) , minimal brain dysfunction was found in 2 cases (2 cases were improved) , neural tube defects was found in 2 cases (1 case was improved and 1 case with Partial improvement) and Rt. Bell's palsy was found in 2 cases (1 case was cured and 1 case was improved.

DISCUSSION

This study was done on children with documented neuropsychiatric disorders. Cases are selected from Outpatient clinic of Pediatric Neurology at Bab Al-Sharyea University hospital. During the period from 2011 to 2017.

The aim of this study was to demonstrate the patterns of Pediatric neuropsychiatric disorders in a sample of Egyptian children at the Pediatric Neurology Outpatient Clinic in Bab-AL-Sharyea University Hospital &The management outcome of different neuropsychiatric disorders.

In the present study there were a total of (2944) children which seen in the Pediatric Neurology Outpatient Clinic at Bab AL-Sharyea University Hospital. There were (1860) (63.2%) males and (1084) (36.8%) females.

The predominance of male with neurological disorders in this study is in agreement with results reported by **(Burton and Allen, 2003)** and **(Frank and Alikor, 2011)**. This may be explained by a male child being brought to the hospital for medical attention than the female especially in the developing countries which is considered as a part of social habits.

In the current study epilepsy (seizures) disorders was the commonest neurological disorder, occurred in 459 (21.7%) of patients. This is in agreement with results reported by, **(Ogbe et al., 2006), (Okafor and Lagunja, 2009) and (Frank and Alikor, 2011)**, (25.9%), (45.3%) and (24.6%) respectively.

(Jallon, 1997) and **(Thomas, 2000)** reported that epilepsy is the most common neurological disorders in their studies.

Also, **(Sander, 2003)** reported that epilepsy is the most serious neurological disorder in the world. It affects all ages and crosses all geographic boundaries, and **(Mosser et al., 2007)** reported that epilepsy accounts for (27%) of all neurological diagnosis associated with a substantial burden on physical and mental health.

This high prevalence of epilepsy recorded in this study may be explained by increasing awareness that epileptic seizures is a medical condition which is treatable as against prior believe that it is caused by evil spirit manipulation and witchcraft attacks . Also, seizures and the emotional, cognitive and behavioral problems which accompany them are a burden not just for the child, but also for the family. Parents – and particularly mothers – often blame themselves for their child's epilepsy.

Episodic and unpredictable nature of epilepsy makes it harder to live with than other child disabilities. Both mothers and fathers live in fear of the next attack. It is common in newly diagnosed cases that one parents will stay up all night for fear that the child will die in its sleep, so they sought medical advice early **(Wada et al., 2001)**.

In the current study the predominant type of seizures was Grand mal (GTCS) as it occurred in 152 (33.1%) of patients. This in agreement with results reported by **(Okafor and Lagunja, 2009)** and **(Frank and Alikor, 2011)**.

This is not consistent with **(Kotsopoulos et al., 2002)** in USA who found partial seizures to be more frequent in children than GTCS.

In the present study this may be explained by partial seizures remain unnoticed and the patients sought medical attention when it had secondarily evolved into generalized tonic-clonic seizures.

Cerebral palsy (CP) was the second most common neurological conditions in this study representing 344 (16.2%). This high percentage ensuring the fact that antenatal and perinatal medical care in our environment are still not at their best.

This result in agreement with results reported by **(Ogbe et al., 2006)** and **(Frank and Alikor, 2011)**, (19.3%) and (15.4%) respectively.

This is also consistent with the studies done by **(Okafor and Lagunja, 2009)** who reported that cerebral palsy was the second

commonest neurological disorder but with higher percentage (36%).

The increase in the percentage of CP in this study could be due to:

- Lack of medical services especially perinatal care (incubators, etc……)
- Poor general income of most inhabitants with large family number.
- The increasing numbers of multiple births (twins, triples …) with their risk of preterm birth.

In the current study spastic type was the commonest subtype of CP (60.5%) which is consistent with that of **(Stanley et al., 2000)** and **(Majnemer and Mazer, 2004)**.

(Sianturi et al., 2002), reported that patients with spastic CP was more frequent, 53 (79.1%) of all patients with CP.

(Agarwal and Verma, 2012), reported that about (80%) of all patients with CP have spastic CP, making it the most common type.

(Eltallawy et al., 2013), reported that patients with spastic CP was more frequent, (72.5%) of all patients with CP.

The proportion of children with quadriplegic CP in this study (48.9%) is in agreement with results reported by **(Ogbe et al., 2006), (Okafor and Lagunju, 2009), (Frank and Alikor, 2011)** and **(Eltallawy et al., 2013)** who reported that quadriplegic CP was (67.5%) but higher than that reported in a study carried out in Norway (14.9%) and another two studies from western Sweden (6% and 10%) **(Normark et al., 2001)** and **(Charles and Gordon, 2006)**.

In the present study the proportion of ataxic CP was (2%) which is near similar to **(Eltallawy et al., 2013)**, who reported that ataxic type of CP (4%) of their sample.

In the present study, epilepsy was found in 208 (60.5%) cases of CP children.

In India **(Kaushik et al., 1997)**, report that (56%) of 50 patients with CP were associated with epilepsy.

In Brazil **(Bruck et al., 2011)**, reported that the overall incidence of epilepsy in children with CP was (62%).

In Sweden **(Jacobsson and Hagberg, 2004)**, reported that the incidence of epilepsy in children with CP was (50%).

This relationship between epilepsy among children with CP is being established and accepted in general **(Jaseja, 2007)**, this

could be explained by the fact that children with bilateral CP might suffer expensive brain injury including cortex, deep white matter and central nuclei and therefor they are liable to mental retardation and epilepsy **(Andersen et al., 2008)**.

Hence, an early intervention with treatment of epilepsy prevents further progression of neuronal injury with subsequent cognitive impairment caused by uncontrolled seizures among those patients.

In this study, the prevalence of psychiatric disorders was (17.3%). %) which is similar to **(khaleghi et al., 2017)** , who reported that psychiatric disorders in children was (17.9%) of their sample and in contrast with **(Xiaoli et al., 2014)** who report that psychiatric disorders among children was about (9.49%), which is clearly less than the prevalence earned in our study.

In the present study the most common psychiatric disorders was autism (44.9%), and this disagree with the results reported by **(khaleghi et al., 2017)** and **(Xiaoli et al., 2014)** who report that the most common psychiatric disorders in their studies was anxiety disorders. This may be explained by most of such children of psychiatric disorders are seen in the psychiatric department of the hospital.

In the current study, after 6 months follow up of 50 cases (sample of patients) were revealed that: Epilepsy was found in 22 cases (14 cases were cured , 7 cases were improved and 1 case was Partial improvement) , cerebral palsy was found in 17 cases (1 case was cured , 5 cases were improved , 7 cases were Partial improvement and 4 cases were no improvement) , autism was found in 5 cases (3 cases were Partial improvement and 2 cases were no improvement) , minimal brain dysfunction was found in 2 cases (2 cases were improved) , neural tube defects was found in 2 cases (1 case was improved and 1 case was Partial improvement) and Rt. Bell's palsy was found in 2 cases (1 case was cured and 1 case was improved).

Limitations of the study:

1. Duration of follow up for a sample of cases is short.
2. Difficulty of follow up after discharge.

CONCLUSION

From our study we conclude that:

1- Neuropsychiatric disorders were frequent among children.

2- Neuropsychiatric disorders were frequent in males than females.

3- Early diagnosis of neurological disorders was associated with a good prognosis.

Recommendations

1. Health education to mothers for regular checkup during pregnancy and importance of perinatal care, this will minimize complications of pregnancy and labour which is a major cause for high prevalence of cerebral palsy.

2. Media should advice people about epilepsy and inform that it is curable disease and people should seek medical advice once they suspect it.

3. Increasing availability of rehabilitation centers for children with cerebral palsy will decrease morbidity and motor handicapping in a large sector of patients during the suspected functional period of their lives.

4. Training of caregivers and members of the family of CP patients.

5. Increasing availability of psychological rehabilitation and communication centers for children with behavioral disorders and mental retardation.

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دراسة استرجاعية للحالات المترددة على العيادة الخارجية لأعصاب الأطفال بمستشفى باب الشعرية الجامعي

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الهدف : نهدف إلى توضيح معدل إنتشار الاضطرابات النفسية والعصبية لدى الأطفال في عينة من الأطفال المصريين المترددين علي العيادة الخارجية لطب أعصاب الأطفال في مستشفى باب الشعرية الجامعي ونتائج تحسن الأمراض العصبية المختلفة لبعض الأطفال.

المنهجية: تتكون هذه الدراسة من جزأين ، الجزء الأول عبارة عن دراسة استرجاعية حيث شملت 2944 طفلاً مصاباً بأمراض عصبية موثقة ، أجريت علي الحالات التي ترددت علي العيادة الخارجية لأعصاب الأطفال خلال الفترة من 2011 إلى 2017 ، والجزء الثاني هو دراسة مطولة (دراسة للمتابعة) لمتابعة نتائج علاج 50 حالة ، تم اختيار هذه الحالات خلال الفترة من يوليو 2017 حتى أول يناير2018 من العيادة الخارجية لأعصاب الأطفال في مستشفى باب الشعرية الجامعي. تم أخذ التاريخ المرضي وإجراء الفحص السريري الكامل وتم إجراء الاختبارات المعملية في المستشفي السابقة.

النتائج: أوضحت النتائج أن الاضطرابات النفسية والعصبية لدى الذكور (63.2٪) كانت أعلى من الإناث (36.8٪) ، وكانت الفئة العمرية الأكثر شيوعًا للمرضى المدروسين بين (6 الى أقل من 12 سنة) بنسبة 39.4٪ وكان الصرع وغيره من الإضطرابات الإنتيابية الأخري هي أكثر الأمراض العصبية شيوعا وتمثل حوالي (21.7٪) من الحالات ويليها الشلل الدماغي (16.2٪) من الحالات. CP وأظهرت الدراسة وجود علاقة إيجابية بين الصرع والشلل الدماغي حيث تم العثور على الصرع في (60.5 ٪) من الأطفال المصابين بالشلل الدماغي. وأظهرت الدراسة أن اكثر الاضطرابات النفسية CP. شيوعا هو التوحد والذي حدث في (45٪) من الحالات النفسية.كما أظهرت أن متابعة 50 حالة

(عينة من الحالات) بعد 6 أشهر من بدء العلاج كشفت عن: 15 حالة (30٪) تم شفاؤها ، 17 حالة (34٪) تحسنت ، 12 حالة (24٪) تحسنت بشكل بسيط و 6 حالات (12 ٪) لم تتحسن.

الاستنتاجات:

1- كانت الأمراض العصبية منتشرة بشكل كبير بين الأطفال.

2- كانت الأمراض العصبية منتشرة بشكل كبير في الذكور عن الإناث.

3- كلما كان تشخيص الأمراض النفسية والعصبية مبكرا كلما كان التحسن افضل.

التوصيات:

1- ضرورة الاهتمام بالتثقيف الصحي للأمهات، والفحص المنتظم أثناء الحمل، وإدراك أهمية الرعاية في فترة ما قبل الولادة، حيث إن هذا الإجراء سوف يقلل من مضاعفات الحمل والولادة التي تعد السبب الرئيس لارتفاع معدل انتشار الشلل الدماغي.

2- يجب على وسائل الإعلام تقديم معلومات للناس عن الصرع، وإعلامهم أنه مرض قابل للشفاء، وأنه يجب عليهم طلب المشورة الطبية بمجرد اشتباههم في هذا المرض .

3- الحاجة إلى ازدياد توافر مراكز إعادة التأهيل للأطفال المصابين بالشلل الدماغي، الأمر الذي سينتج عنه التقليل من معدلات الاعتلال، والمعوقات الحركية في قطاع كبير من هؤلاء الأطفال خلال فترة حياتهم.

4- وجوب وضع برامج تدريبية لمقدمي الرعاية، وأفراد أسر مرضى الشلل الدماغي، مما يسمح بتحسن الحالات وظهور نتائج أفضل.

5- الحاجة إلى الزيادة في توافر مراكز إعادة التأهيل النفسي للأطفال الذين يعانون من اضطرابات سلوكية وتأخر عقلي.