Clinical Profile of Special Children at Asha Centre

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Abstract

Background: The care of special children suffering from cerebral palsy, deaf mutism, mental retardation (MR) and post encephalitic sequelae etc. is done in the armed forces at "ASHA" centre supported by Army Wives Welfare Association (AWWA).

Methods: The clinical profile and underlying etiological factors in these children were studied.

Result: Out of 30 children studied, majority were males. The commonest disability was cerebral palsy, seen in 13 (43%) cases followed by mental retardation in six (20%) and post encephalitic sequelae in four (13%) cases. Convulsions were noticed in 12 (40%) cases. The delayed speech was a significant handicap observed in 27 (90%) cases.

Conclusion: Among the etiological factors, natal causes and infections are leading factors in these children and there is an urgent need to strengthen the existing maternal and child health services in our country.

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Introduction

The care of special children is handled in the Armed Forces by "ASHA" centre supported by dedicated members of Army Wives Welfare Association (AWWA). These special children include cases of cerebral palsy (CP), deaf mutism, mental retardation (MR), post encephalitic sequelae, etc. These children need special care and training to enable them to look after themselves for their rehabilitation [1, 2]. Suitable physical, mental and occupational therapy is done at ASHA Centres by trained staff in most of the family military stations all over the country. The study was undertaken to evaluate the clinical profile of special children at ASHA centre and the underlying etiological factors.

Material and Methods

The study was conducted at ASHA centre at Mathura Cantt. All the children enrolled at ASHA Centre were evaluated. Detail history was obtained from the parents. Clinical evaluation and necessary investigations were done to detect underlying etiology and proper diagnosis. Minear's classification of cerebral palsy was used for classification[3].

Results

ASHA centre has 30 special children, who are looked after by six teachers trained in handling physically and mentally disabled children, including speech therapist and psychologist. The distribution of the cases is shown in Table 1.

There were 25 male and 5 female children with a sex ratio of 5: 1. The head circumference was below 3 SD in 12 (40%)

cases. External features of Down Syndrome were seen in three and Crouzon's in one case. Convulsions were noticed in 12 (40%) cases. The ocular defect was seen in 3 cases while hearing handicap was seen in 7 (23%) cases. The delayed speech was another significant handicap observed in 27 (90%) cases. Cerebral palsy was the commonest disability, seen in 13 (43%) cases, of which the commonest type was spastic in nine (70%) cases, hypotonic in three (23%) and athetoid in one case. Others causes were mental retardation in six (20%), post encephalitic sequelae in four (13%), Down's Syndrome in three (10%) and deaf mutism in two cases.

Birth asphyxia was the commonest predisposing factor found in 12 (40%) cases in perinatal period and infections

Table 1

Distribution of cases at ASHA centre

Type of handicap	Number of cases (n=30)	Percentage
Cerebral palsy	13	43
Spastic		
Diplegia	6	
Quadriplegia	2	
Hemi plegia	1	
Hypotonic	3	
Athetoid	1	
Post encephalitic sequelae	4	13
Mental retardation	6	20
Down syndrome	3	10
Deaf mutism	2	6
Misc	2	6
Crouzons	1	
Schizencephaly	1	

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Table 2**Predisposing factors seen in special children**

Predisposing factor	Number of cases	Percentage
Prenatal insult (Bleeding , PIH*, Infection)	6	20
Birth asphyxia	12	40
Neonatal septicemia / meningitis	4	13
Encephalitis	4	13
Down's syndrome	3	10
Hypothyroidism	2	6
Unknown	7	23

* PIH= pregnancy induced hypertension

emerged as the most common factor seen in nine (30%) cases after neonatal period. Hypothyroidism was detected in two cases of mental retardation, which showed significant improvement after the therapy. In seven (23%) cases, which included deafmutism, benign congenital hypotonia and autism, no predisposing factor could be identified (Table 2).

Discussion

In the present study, cerebral palsy was the most commonest cause, followed by mental retardation and deaf mutism for seeking admission at ASHA centre. The incidence of cerebral palsy cases was similar to that reported by Sharma et al [3].

Various predisposing factors causing damage to developing brain may lead to clinical picture of cerebral palsy which may act at prenatal, natal and post natal period. Birth asphyxia was the commonest predisposing factor during perinatal period, while infection was commonest cause after the neonatal period. Out of 13 children with cerebral palsy, birth asphyxia was observed in eight(60%) cases, based on the history given by the parents and perusal of available documents. This incidence appears high as per standard references, but Sharma et al [3], have reported an incidence of 48% of birth asphyxia. A high frequency of speech defect was observed in these children as speech defects are multifactorial in origin associated with impaired hearing, cortical damage and in-coordination or paresis of the muscles of tongue, lips, larynx and respiratory tract.

Management of these children requires a multidisciplinary team approach comprising of physicians from various specialties, occupational and physical therapists, speech pathologists, social workers, and developmental psychologists. Communication skills may be enhanced by the use of Bliss symbols, talking typewriters and especially adapted computers including artificial intelligence computers to augment motor and language function. Significant behavioral problems, learning and attention deficit disorders may substantially interfere with the development of these children and

their early identification and management is important with the help of psychologist.

Pharmacotherapy is often used for spasticity. Botulinum toxin trials for the management of spasticity in specific muscle groups have been encouraging. Parents should be taught how to handle their child in day to day activities and supervise a series of exercises designed to prevent the development of contractures. Awareness of developmental delay and early intervention using multidisciplinary approach will produce best results [4-8].

This study revealed that natal causes are leading predisposing factors in these children and hence there is an urgent need to further strengthen the existing maternal and child health services in our country. Prevention of these disorders, when feasible, remains the only truly effective treatment. ASHA centre is a nodal centre to provide not only the physical and mental training to these special children but also provide occupational and vocational training in order to make independent. It also provides various financial, educational social and rehabilitative services.

Conflicts of Interest

None identified

Intellectual Contribution of Authors

Study Concept : Lt Col R Gupta

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