



A STUDY TO ASSESS CLINICOETIOLOGICAL PROFILE OF CHILDREN WITH CEREBRAL PALSY VISITING DEIC OF A TERTIARY CARE CENTRE- A CROSS-SECTIONAL STUDY

Paediatrics

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ABSTRACT

Introduction: Childhood is a major event, which brings great responsibility to parents, it increases even more when the child has disability like Cerebral Palsy, autism and developmental problems. The disabilities are verbal and non-verbal communication, intellectual disability and significant behavioral complaints. The current study is undertaken to better understanding of Clinico-etiological profile of children suffering with CP (2-18Yrs). **Objective:** This study aims to assess the clinic-etiological profile of children with CP. **Method:** A cross sectional study was conducted and data was collected from parents of patients visiting OPD/DEIC of a tertiary care centre using a questionnaire which includes sociodemographic factors, antenatal details, birth details & significant post-natal details, to find out the etiology leading to Cerebral Palsy. **Results:** The study sample consisted 53 children with Cerebral Palsy, 27(50%) affected children were between age group of 1-5yrs, 31(57.4%) being male children, 15(27.8%) being Preterms by GA, and most common cause was identified as Perinatal asphyxia accounting for around 32(59.3%) of cases, with most common type being Spastic Cerebral Palsy. **Conclusion:** Most common risk factor of CP is birth asphyxia; thus, by improving health care facilities, its incidence can be reduced. CP affects not only motor functions but also other important functions of body as well, and the more severe the motor disabilities, the more are other comorbidities and their intensity also increases with that of the intensity of brain insult.

KEYWORDS

Cerebral Palsy, Perinatal Asphyxia, Gestational Age, District Early intervention centre,

INTRODUCTION

The term "cerebral palsy"¹ refers to a collection of conditions affecting posture, movement, and control that impair an individual's ability to perform certain tasks. These conditions are thought to be caused by non-aggressive disruptions in the developing fetus or infant brain.

Every patient's function, health-related quality of life, and professional prospects are significantly impacted by CP. A seizure condition, visual and auditory abnormalities, and/or problems in sensation, cognition, communication, perception, and/or behaviour are frequently present alongside the motor disorders of cerebral palsy (CP).

The prevalence^{2,3} of CP in live newborns varies from 2-3 per 1000. Children with cerebral palsy (CP) also have additional related neurodevelopmental problems, such as epilepsy, motor speech disorder, vision and hearing impairments, intellectual impairments, and communication difficulties. Several classifications have been devised to define everyday activities in terms of mobility, gross motor skills, manual ability, communication, and feeding in order to describe functional abilities in a child with cerebral palsy.

Healthcare providers and parents can use these systems to categorize a child with cerebral palsy (CP) according to their level of activity and involvement within the International Classification of Functioning, Disability and Health (ICF)³ framework.

The classification systems for gross motor function, manual ability, communication function, and feeding ability are Gross Motor Classification System (GMFCS)⁶, Manual Ability Classification System (MACS), Communication Function Classification System (CFCs), and Eating Drinking Ability Classification System (EDACS), in that order.

MATERIALS AND METHODS

Source of Data:

Children with CP aged 2-18 years, attending District Early Intervention Centre (DEIC), OPD and Inpatient at Vani Vilas Hospital (VVH), Bangalore Medical College & Research Institute (BMC&RI)

Methods of Collection of Data

A. Study Design : Cross sectional prospective study

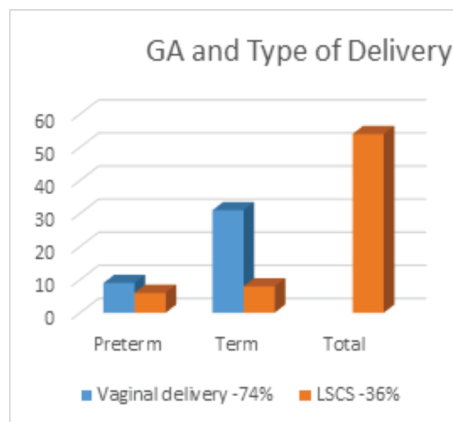
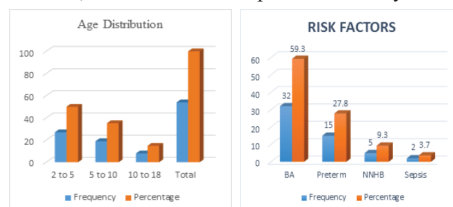
B. Study Period : Aug 2022 to Jan 2024, 1 year 8 months

C. Place of Study : Vani Vilas Hospital BMCRI

RESULTS

The study sample consisted 53 children with Cerebral Palsy, 27(50%) affected children were between age group of 1-5yrs, 31(57.4%) being male children, 15(27.8%) being Preterms by GA, and most common cause was identified as Perinatal asphyxia accounting for around 32(59.3%) of cases, with most common type being Spastic Cerebral Palsy.

Birth asphyxia (59.3%) is the most common risk factor, followed by Preterm births (27.8%). Five cases (9.3%) of Neonatal Hyperbilirubinemia was identified (9.3%) among which 3 cases were Dyskinetic CP(60%). Birth Asphyxia and Preterm births constitute most risk factors, while NNHB and Sepsis are relatively less frequent.



DISCUSSION

The data obtained from the present study shows that among 54 children between age group of 2-18 years involved in the study, with mean age of the sample is 6.36 years with a standard deviation of 4.15 years, 2-5 years is the most represented age group (50.0%).

There was no significant variation in the Gender. Quadriplegic CP is the most common type(38.9%). Diplegic CP follows with 22.2%. Dyskinetic CP and Mixed CP represent 14.8% of the cases. Hemiplegic CP is the least common, with 9.3%.

This was consistent with a study conducted by Deepthi et al⁹ in Thrissur, Kerala in which the mean age was less than five years and the most common neurological subtype of CP was spastic quadriplegia (47%) followed by spastic hemiplegia (25%) and diplegia (16%).

The dyskinetic (7%) and mixed CP(5%) were the least common. Spastic quadriplegia is the commonest subtype of cerebral palsy reported from India and other developing countries^{40,41,42}. Studies from the West report a higher incidence of spastic diplegia and hemiplegia reflecting greater survival of preterm babies^{43,44,45}. Among 54 deliveries 72.2% were Term Gestation and 27.8% were Preterm.

CONCLUSION

Most common risk factor of CP is birth asphyxia; thus, by improving health care facilities, its incidence can be reduced.

CP affects not only motor functions but also other important functions of body as well, and the more severe the motor disabilities, the more are other comorbidities and their intensity also increases with that of the intensity of brain insult.

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