ORIGINAL RESEARCH PAPER
Volume - 12 | Issue - 03 | March - 2023 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

ETIOLOGICAL FACTORS OF LANGUAGE DELAY IN CHILDREN ATTENDING PAEDIATRIC CLINIC

Paediatrics

Dr. Sahnavaj Khan Pathan* Assistant Professor Pramukhswami medical college, Karamsad. *Corresponding Author

Dr. Darshan Nayakpara Senior Resident Pramukhswami medical college, Karamsad

ABSTRACT

Etiological factors of language delay in children attending paediatric clinic **Objective** To examine and find out the etiological factors of language delay of children less than 3 years. **Materials and methods** This is a cross-sectional prevalence type of study conducted over a period of 5 months. Language delay was identified by using early follow up of high risk newborn babies, early screening of high risk newborns and early developmental assessment including language assessment with LEST. cases were taken from children attending paediatrics OPD, indoor patients, G.G. Govt hospital Jamnagar after taking written consent. scientific and ethical research committee's approval taken. results were analysed with the help of standard statistical tests. **Results** A total of 241 patients taken. out of which 205 patients noted with language delay in primary screening of language with LEST(85.1%). After primary screening evaluation with LEST ,we did REELS. In REELS we checked two components of REELS. 1, Receptive and 2, Expressive. Out of 241 children 127 children were abnormal in REELS. **Conclusion** Children experience many risk factors but the most detrimental effects on language development are caused when multiple biological and environmental risk factors act on a single child.

KEYWORDS

Early screening, LEST(Language Evaluation Scale Trivandrum), REELS(Receptive Emergent Language Scale)

INTRODUCTION

Speech and language development in children is a dynamic process. Speech refers to the mechanics of oral communication or the motor act of communicating by articulating verbal expressions. Language encompasses the understanding, processing, and production of communication. Several types of speech and language delay and disorders have been described, although the terms used to describe them vary. Speech problems include stuttering or dysfluency, articulation disorders, or unusual voice quality. Expressive language delay may exist without receptive language delay, but they often co-occur in children. Some children may also have disordered language .These language problems can involve:- difficulty with grammar **(syntax)**, words or vocabulary **(semantics)**, the rules and system for speech sound production **(phonology)**, units of word meaning **(morphology)**, and the use of language particularly in social contexts **(pragmatics)**. Speech and language problems can exist together or separately.

In general, a child is considered to have a speech delay if the child's speech is significantly below the norm for children of the same age. A child with speech delay has speech development that is typical of normally developing child of a younger chronologic age, the delayed child's skills are acquired in a normal sequence, but at a rate slower than normal. Children, 5 years of age or younger whose speech and language delays are untreated may exhibit diminished reading skills, poor verbal and spelling skills, behavior problems, and impaired psychosocial adjustment. This can lead to the overall academic underachievement and a lower IQ that may persist into young adulthood. Thus, screening and identification of a speech delay can lead to early intervention and therapy. In this review article, we will discuss the etiology of speech delay in children, screening tests, management, and the role of the pediatric dentist in the diagnosis and referral for further intervention and treatment.

Sample Size And Study Population:
Type Of Study: Cross sectional study
Sample Size: 241 Cases
Period Of Studies: 5 months

Inclusion Criteria:
1. Age group : Birth to up to 3years
2. Patients fulfilling positive language screening tests at triage

Exclusion Criteria:
1. Child > 3 years.
2. Parents/guardian who were not willing to enroll the child.

RESULT

Table 1: Association of perinatal asphyxia with LEST

Perinatal asphyxia	LEST	
	Delayed	Not delayed
Yes	45(95.7)	2(4.3)
No	160(82.5)	34(17.5)
Fisher exact test=0.0216;p=<0.05		

In our study perinatal asphyxia is statistically significant with LEST with fisher exact test value 0.021 with p value of <0.05.

Table 2: Association of hypoglycemia with LEST

Hypoglycemia	LEST	
	Delayed	Not delayed
Yes	22(95.7)	1(4.3)
No	183(83.9)	35(16.1)
Fisher exact test=0.2159;p=<0.05		

In our study hypoglycaemia is statistically significant with LEST With fisher exact test value 0.2159 with p value of <0.05.

Table 3: Association of LEST with REELS

REELS(expressive)	LEST	
	Delayed	Not delayed
Normal	84(70.6)	35(29.4)
Abnormal	121(99.2)	1(0.8)
Fisher exact test=0.00001;p=<0.05		

REELS(expressive) is highly significant with LEST with fisher exact test value of 0.00001 with p value of <0.05.

DISCUSSION

- Early identification and high risk newborn follow ups of severe perinatal events like birth asphyxia, hypoxic ischemic encephalopathy, hypoglycaemia ,refractory hypoglycaemia, jaundice, jaundice with high risk factors including exchange transfusion done at birth, early identification of kernicterus can prevents language delay.
- Early identification of maternal history like hypothyroidism, TORCH infection, antepartum history including pregnancy induced hypertension, gestational diabetes mellitus, pre-gestational diabetes mellitus can prevents language delay by early screening of newborn babies.
- Early identification of inherited familial diseases, consanguineous marriage history, bad obstetric history including stillbirth or fetal loss would prevents language delay and other developmental milestones by early screening and high risk follow-up's of new-born's.
- We recommend early hearing screening of high risk newborns can saves or prevents language delay by early identification of severity and type of hearing loss with need of hearing aids and early starting

of speech therapy.
- Early identification of nutritional status of the child like failure to thrive. Severe acute malnutrition or moderate acute malnutrition which have significant impact on child's growth and developments including language milestones also prevents language delay.

CONCLUSION

- In our study we did LEST screening test for language evaluation. Out of 241 children 205 were delayed in LEST(85.1%).
- In our study after primary screening evaluation with LEST,we did REELS. In REELS we checked two components of REELS.**1, Receptive** and **2, Expressive**.
- Out of 241 children 127 children were abnormal in REELS.
- In our study we found out association of various birth events with LEST.BIRTH EVENTS like perinatal asphyxia. Total 47 children from 241 having perinatal asphyxia .45 children with perinatal asphyxia were LEST delayed(95.7%).
- In our study we found out association of various birth events with LEST. BIRTH EVENTS like hypoglycaemia. Total 23children were hypoglycaemia at birth.22 children with hypoglycaemia were LEST delayed95.7%).
- In our study we did associations of LEST with REELS.
- LEST were delayed in 205 children(85.1%).REELS abnormal in 127 children. We found strong association between REELS and LEST.(99.2% of children were both)70.6% were REELS normal but LEST delayed.
- In our study we did association of Autism with LEST.TOTAL 32 CHILDREN WERE FOUND WITH AUTISM.31 children with AUTISM had delayed LEST.(96.9%).
- In our study we did association of SOCIOECONOMIC CLASS with LEST. Maximum children were from lower socioeconomic class with delayed LEST (16.4%).7.5% with upper socioeconomic class with delayed LEST.
- In our study we did association of mode of delivery with LEST. Maximum were from NORMAL VAGINAL DELIVERY who have found with delayed LEST(83.0%).