Original Research Article

Infantile Masturbation- Treated with Anti-Epileptic Drugs: Experience of a Tertiary Care Pediatric Hospital in Bangladesh

ABSTRACT:

Aim: This study was aimed to find out the mismanagement of infantile masturbation and the outcome of the cases who were treated with anti-epileptic drugs.

Study design: Retrospective

Place and duration of study: This study was conducted at outpatient department of Rehabilitation and Neurology unit of Dr. M R Khan Shishu Hospital and Institute of Child Health between 2013-2022.

Method: Data were collected from records which included socio-demographic data and clinical features of masturbation in children. Data related to treatment was also collected and their outcome was observed.

Result: Among 50 patients, majority (74%) had age of onset between 12-36 months of age. Mean age was 43±26 months, the range was between 4 months to 84 months. Female were predominant (60%). Most of the children came from urban area (86%) and belong to nuclear family (78%). They presented with stereotype movement of variable duration and there was no alteration of consciousness. Prone positioning was more frequent than prone to supine position (78% Vs 18%). There was no laboratory and EEG abnormalities among the cases. Thirty two percent patients were treated with anti-epileptic drugs from outside and among them 2 (12%) was given sodium valproate and rest 14 (88%) were treated with phenobarbitone. But there was no clinical improvement in these cases.

Conclusion: Use of anti-epileptic drugs was not associated with any clinical improvement in children with infantile masturbation.

Key words: *Masturbation; Infant; anti-epileptic drugs; Bangladesh.*

1.INTRODUCTION:

Infantile masturbation or gratification or benign idiopathic infantile dyskinesia is a common condition in children which often mimics like seizure. It is characterized by self-stimulation of the genitalia which is frequently associated with unusual posture and movement, sweating, tachypnoea and begins typically in infancy and early childhood [1]. It occurs in 90% to 94% of male and 50% to 60% of female at some point in their lives [2-3].

Children mostly present at two to three years of age and may have rhythmic rocking movements in sitting or lying position or rhythmic hip flexion and adduction. It is often associated with perspiration, irregular breathing and grunting but no loss of consciousness [2]. It does not only look like seizure, may be misdiagnosed as movement disorder, abdominal pain, colic, or other neurologic or medical problems [4].

Educating and counseling the parents are often the only suggested measures as this condition in infants usually resolve spontaneously [5-6] . But many times, this is over diagnosed. When there are repeated jerky spasms, there may be confusion with epileptic infantile spasms. The administration of anti-epileptic drugs like sodium valproate, ethosuximide, phenobarbitone, vigabatrin and ranitidine has been described in some studies [7].

In Bangladesh, talking about sex has not been encouraged. There are few reported cases also on this topic. Because of social and cultural stigmata, early diagnosis and management often become difficult. As masturbatory habits are quite prevalent among children in our country, health personnel specially pediatrician need to be aware of gratification.

In our study, we have observed the outcome of children having infantile masturbation attending in our outpatient department who were treated with different anti-epileptic drugs. We have also reviewed their socio-demographic and clinical features.

2.METHODOLOGY:

This retrospective study was performed in the outpatient department of Rehabilitation and Neurology unit of Dr. M R Khan Shishu Hospital and Institute of Child Health from 2013-2022. Children who met the following criteria was considered to have masturbating behavior (based on previous studies) [8-9].

1) Stereotype movement with variable duration 2) No alteration of consciousness
3) Cessation with distraction when attempted 4) Remained responsive during the events
5) Neurological examinations revealed normal 6) Normal findings in laboratory studies.

Children above 120 months, diagnosed cases of epilepsy, problems related with irritation in genital area, abdominal colic and urinary tract infection were excluded. All data were collected in a structured data collection form from the record book which included history, socio-demographic characteristics, clinical features of the movement, use of any drug especially anti-epileptic drug and about investigations like electroencephalogram (EEG) done or not etc. Home video recording was also reviewed where available.

Total 50 patients having infantile masturbation, attended outpatient department during the study period with age ranging from 4 months to 84 months. Consent was obtained from parents of all participants. Socioeconomic status was determined by monthly income of the parents and monthly income <10,000/month considered as lower income group, 10,000-20,000/month as middle- income group and >20,000/month as higher income group [10]. Clinical examinations, neuro-developmental assessment and psychological assessment was done in all patients. Children did not have any history suggestive of sexual abuse or emotional deprivation. No blood sampling was done to assess sex hormone level (e.g., estradiol) in these patients.

Anti-epileptic drugs were prescribed by local physicians misdiagnosing the cases as possible epilepsy. They were counseled and anti-epileptic drugs were gradually tapered and then stopped. Parents who were not satisfied with counseling to stop the drug, EEG was also done for showing evidence and then drug was stopped. Data were analyzed by using SPSS statistical software (version 20).

3.RESULTS:

During the study period, 50 patients with infantile masturbation attended the study place. Among them 74% were with the age range of 12-36 months. Female were predominant and 86% belonged to urban area. Ninety six percent patients came from middle and high-income society.

Table-1: Socio-demographic features of the study population (n=50)

Variable	Number (n)	Percentage (%)
Age on onset		
Up to 12 months	7	14
12-36 months	37	74
>36 months	6	12
Gender		
Male	20	40
Female	30	60
Residence		
Urban	43	86
Rural	7	14
Type of family		
Nuclear	39	78
Joint	11	22
Socio-economic class		
Lower income group	2	4
Middle income group	23	46
Higher income group	25	50
No of sibling		
No sibling	7	14
One sibling	29	58
Two or more sibling	14	28

Figure-1 showed that children had different presentations including color change (92%), vocalization (80%), activity in prone posture (78%). Activity preference was mostly when unnoticed (44%) and in 32% cases prefer both unnoticed and noticed.

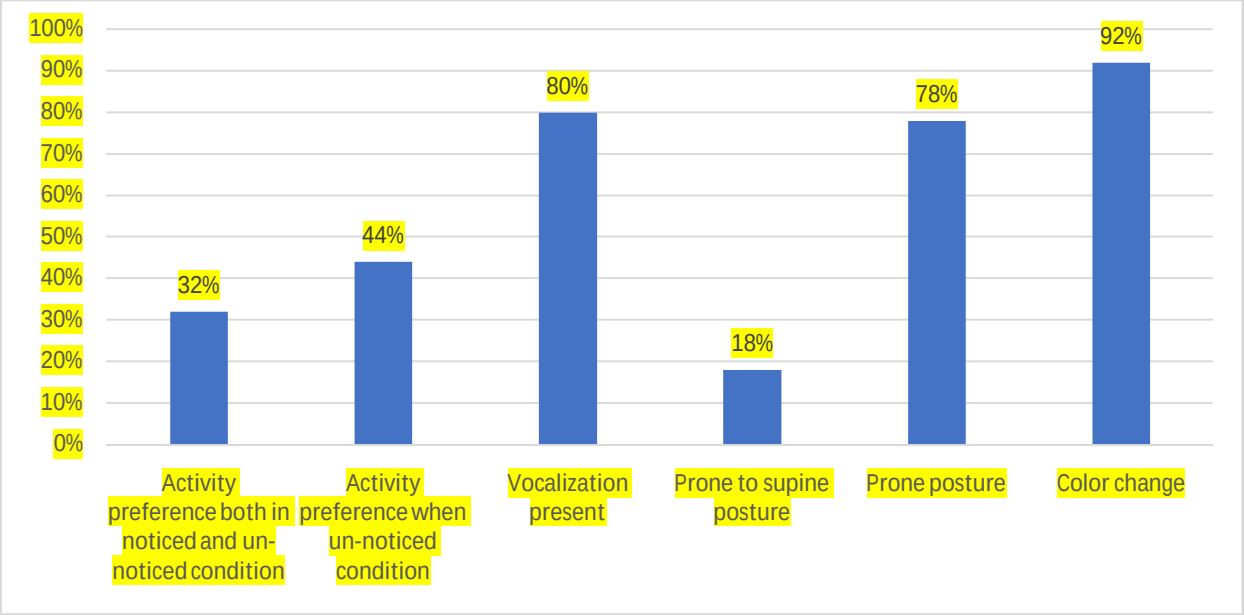

Figure-1: Distribution of clinical pattern of masturbation among study population (n=50)

Table-2: Information regarding frequency of infantile masturbation episodes

Variable	Number (n=50)	Percentage (%)
Episode per day		
< 3	2	4
3-5	33	**66**
>5	15	30
Duration of each episode		
<3 min	14	28
3-5 min	24	**48**
>5 min	12	24

Table-2 showed that majority of episodes persisted for 3-5 minutes (48%) followed by less than 3 minutes (28%) and mostly occurred 3-5 times in a day (66%). In table 3, it was observed that 40% patients were underwent EEG and finding was normal. No EEG was done during the episodes at home but video recording was done by parents spontaneously or after advice.

Psychological assessment was done in all patients and all of them was normal. Thirty two percent cases were treated with anti-epileptic drugs such as phenobarbitone (88%) and sodium valproate (12%). But we observed no improvement in those cases. Serial counseling improved the clinical situation of the children and the duration was variable (6-18 months). This was due to associated situations like frequency of follow up, home activities, parental acceptance of the condition and desire to receive the counseling and management.

Table-3: Information regarding investigations and drugs among studied children (n=50)

Variable	Number	Percentage
EEG		
Done	20	40
Not done	30	60
Psychological assessment		
Normal	50	**80**
Abnormal	00	00
Treated with anti-epileptic drugs		
Yes	16	**32**
No	34	68
Type of anti-epileptic drugs treated with (n=16)		
Phenobarbitone	14	**88**
Sodium valproate	2	12

4. DISCUSSION:

Masturbatory behavior, which is considered as a normal behavior in children, often recognized as epilepsy, movement disorder, abdominal pain, colic, or other neurologic or medical problems. Because, when a child twitch or move one or more limbs several minutes at a time or when there are repeated jerky spasm, there may be confusion with epileptic infantile spasm. This leads to un-necessary investigations and often physician start medication like anti-epileptic drugs.

In this study, most of the children had this problem between 12-36 months. This finding is consistent with other study findings done by Young M et al.[1] Female were mostly affected that is also in accordance with other studies [11].

The current study revealed that, two third of the patients came from urban area. In real scenario, it can also be found in rural areas, but due to illiteracy and ignorance of people about sex, they don't go to health facility. Moreover, there is lack of experience among the attending physicians to identify this problem.

We found that most of the patients belonged to middle- and higher-income group (46% and 50% respectively). But Dhaher S, et al. found masturbatory habit commonly in lower socio-economic class (68%) [12]. Our study findings do not match with this result may be due to the ignorance in the lower-class group to address this condition and to seek medical help.

It was observed in this study that, majority of the children came from nuclear family. This finding is similar with the study done by Biswas et al. in West Bengal.[11]It is evident from many studies that, behavioral problems are associated with type of families [12].

Regarding clinical characteristics, all 50 children showed stereotyped movement with no alteration of consciousness. Majority of children did this event on prone position (78%) followed by prone to supine position (185) which is consistent with study done by Ajlouni HK et al [8].

In a study done by Dhaher S et al., the frequency of masturbation events was found variable, and the mean length of events was 5 minutes. On the other hand, we found event duration 5-10 minutes in 24% cases and in 66% cases it happened <5 times/day. They also got that in 80% of children masturbation happened at any time. This finding is also similar with our findings [12].

Management in these cases is often the reassurance of their parents. This is a self-limiting problem and might disappear over time. Distracting the child by allowing him/her to engage in diverting activities during the episode might be helpful for these children. We found 32% children treated with anti-epileptic drugs with no improvement. This finding is consistent with the result of Ajlouni HK et al [8]. All our patients improved with counseling and re-assurance to the parents over time.

5.CONCLUSION:

Infantile masturbation is a real problem and often causes confusion and misdiagnosis with Epilepsy. But anti-epileptic drugs don't cause any improvement. Re-assurance and counseling is the only common means to treat this condition.

CONSENT FROM:

All authors declare that written informed consent form was obtained from the parents of the patient.

Ethical Approval:

Ethical approval was obtained from Institution's Ethical Review Committee.

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