The characteristic of toddler’s reproductive health in Posyandu Matahari, Blimming, Malang

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Objectives. The screening of reproductive health plays an essential role in early detection of reproductive health disorder. There was a study which suggested that there was at least one congenital disorder every 100 live births. Congenital reproductive disorders are mostly found in type of hypospadias, enlarged clitoris, micropenis, fusion of labia majora, and genital ambiguity. Data collected in Saiful Anwar General Hospital revealed that during the period of 2012-2017 there were 109 hypospadias cases, 64 undescended testicle cases, and 80 cases of testicular torsion. However, for the Disorders of Sex Development cases, there were 12 cases from the period of 2015-2017, with the mean age was school age (8-14 years old). Unfortunately, there was no data of congenital reproductive disorder in toddlers, thus we conducted screening of toddlers reproductive health in Posyandu Matahari which located in Gedung Serbaguna Rw. 14, Kelurahan Bunulrejo, Kelurahan Jodipan, Kecamatan Blimming, Malang in order to find out the number of incidence of toddlers congenital reproductive disorder and held the early detection.

Methods. This is observational descriptive study. Screening was held in Posyandu Matahari which is located in Gedung Serbaguna Rw. 14, Kelurahan Bunulrejo, Kelurahan Jodipan, Kecamatan Blimming, Malang, on October 27, 2018. It used a method of physical examination (age, weight, height, external genital examination), and it was found suspicious of disease or disorder of toddler congenital reproductive health, thus it would be given referral to appropriate health care.

Results. This screening event involved 46 toddlers (1-5 years old). From 46 toddlers, there were 14 toddlers (30.43%), 10 toddlers suffered from Phimosis (21.74%), 1 toddler with Hydrocele (2.17%), dan 3 toddlers suffered from Undescended Testis (UDT) (6.52), who were referred to urology clinic in Saiful Anwar General Hospital to undergo further examination and treatment.

Conclusions. The incidence of toddlers reproductive disorder of this event was 30.43%, showing that this age group (1-5 years old) had a significant amount of congenital reproductive disorder and screening played an important role for early detection and improving parental knowledge to prevent the delay of treatment for reproductive disorder.

Keywords: characteristic, reproductive health, toddlers

Introduction

Screening is one of the tools used in epidemiology to figure out the prevalence rate of a disease in a group of persons or society which needs urgent treatment. The screening of reproductive health plays an essential role in early detection of reproductive health disorder. There was a study which suggested that there was at least one congenital disorder every 100 live births. Congenital reproductive disorders are mostly found in type of hypospadias, enlarged clitoris, micropenis, fusion of labia majora, and genital ambiguity [1-2].

Data collected in Saiful Anwar General Hospital revealed that during the period of 2012-2017 there were 109 hypospadias cases, 64 undescended testicle cases, and 80 cases of testicular torsion. However, for the Disorders of Sex Development cases, there were 12 cases from the period of 2015-2017, with the mean age was...
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Materials and Methods

The screening event was held in Posyandu Matahari which is located in Gedung Serbaguna Rw. 14, Kelurahan Bunulrejo, Kelurahan Jodipan, Kecamatan Blimbing, Malang, on October 27, 2018. It used a method of physical examination (age, weight, height, external genital examination), and if it was found suspicious of disease or disorder of toddler congenital reproductive health, thus it would be given referral to appropriate health care. Referred patients would be directed to the urology clinic in Saiful Anwar General Hospital for thorough analysis and treatment.

Results

This screening event involved 46 toddlers (1-5 years old) with only 2 girls and 44 boys. The Mean age was 2 years old, mean weight was 11 kg and mean height was 90 cm. From 46 toddlers, there were 14 toddlers (10 toddlers suffered from Phimosis, 1 toddler with Hydrocele, and 3 toddlers suffered from UDT who were referred to the urology clinic in Saiful Anwar General Hospital to undergo further examination and treatment. Patient characteristics are tabulated in Table 1.

Table 1. Characteristic of Toddlers in the screening

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (2 years old)</td>
<td>46 (100%)</td>
</tr>
<tr>
<td>Mean weight (11 kg)</td>
<td>46 (100%)</td>
</tr>
<tr>
<td>Mean height (90 cm)</td>
<td>46 (100%)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Boy</td>
<td>44 (95.65%)</td>
</tr>
<tr>
<td>Girl</td>
<td>2 (4.35%)</td>
</tr>
<tr>
<td><strong>Reproductive disorder</strong></td>
<td></td>
</tr>
<tr>
<td>Phimosis</td>
<td>10 (21.47%)</td>
</tr>
<tr>
<td>Hydrocele</td>
<td>1 (2.17%)</td>
</tr>
<tr>
<td>UDT</td>
<td>3 (6.52%)</td>
</tr>
<tr>
<td>No abnormality</td>
<td>32 (69.57%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>46 (100%)</td>
</tr>
</tbody>
</table>

Discussion

Screening is one of the tools used in epidemiology to figure out the prevalence rate of a disease in a group of persons or society which needs urgent treatment. The screening of reproductive health plays an essential role in early detection of reproductive health disorder. The Congenital reproductive disorders are mostly found in type of hypospadias, enlarged clitoris, micropenis, fusion of labia majora, and genital ambiguity [1-2].

Unfortunately, the majority of screening is conducted in elementary school, junior high school and high school, whereas theoretically the earlier the disorder detection, the quicker the intervention in terms of decreasing physical, mental and social burden. According to the data from World Health Organization (WHO) in 2010, the teenage group (10-19 years old) was one fifth of the world population and 83% of this lived in developing countries. Besides that, WHO emphasized the necessity of reproductive health education in earlier age. A significant lack of data in toddlers would bring an inconclusive approach to the congenital genital problem [3-5].

The incidence of phimosis is almost 50% in the first year of life and nearly 11% in 3 year old boys, but then decreases until 8% in six to seven year olds and in just 1% in males aged sixteen to eighteen years [6]. The screening revealed the amount that follows the interval of incidence for phimosis (21.74%).

About 1–3% of newborn babies suffer from hydrocele or hernia and around 6% of full term boys are with clinical hydrocele. In babies before 1 year old, hydrocele can be self-resolving and only needs conservative treatment [6]. In this event, it was found that hydrocele 2.17%.

Undescended testis (UDT) is mostly found in preterm infants. The prevalence rate of UDT in premature infants in the United States is 30%. Globally, the incidence of UDT is found 3-4% in newborn babies but it will decrease from the age of 3 months and only less than 1.0% in one year old boy [7-10]. In this event, it showed 6.52% cases with UDT.

The participants in this screening event were dominated by boys, so that the finding only showed male genital disorder. Nevertheless, based on comparison with epidemiology data, it could be suggested that a simple screening has significant influence in affecting toddlers reproductive health by detecting disorders earlier. Because the objective of this event was to find out the number of incidence of toddlers congenital reproductive
disorder and held the early detection, thus whatever the result, it would be beneficial to prevent the delay of treatment and could encourage parents to improve their knowledges about toddlers reproductive health and disorder so that they would willingly bring their children to urology clinic to get examination thoroughly.

The limitation of this study was the research design of observational descriptive study that frequently presented incomplete data and would not find any causal or affecting factor. This study only collected data and presented it in a distribution table. Besides that, the number of population in this study was relatively small, thus it would need more advanced research to study the causative factors and affecting factors and the relationship between them.

Conclusion

The incidence of toddler reproductive disorder of this event was 30.43%, showing that this age group (1-5 years old) had a significant amount of congenital reproductive disorder and screening played an important role for early detection and improving parental knowledge to prevent the delay of treatment for reproductive disorder. Regardless of the number of participants, this study brought a new dimension of improving toddlers' reproductive health service through screening, early detection and prompt treatment afterwards.

Acknowledgment

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Conflict of Interest

The authors declare that they have no conflict of interests.

Ethical Clearance

Saiful Anwar General Hospital’s ethical committee No 8390/89/k.2/207/2021

References