

# The Characteristic of Toddlers Reproductive Health in Posyandu Matahari, Blimbing, Malang, East Java, Indonesia

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## Abstract

**Background & Objective:** The screening of reproductive health plays an essential role of early detection of reproductive health disorder. There was a study which suggested that there was at least one congenital disorder every 100 live births. The Congenital reproductive disorder 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 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 found 12 cases from period of 2015-2017, with 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 Malang, East Java, Indonesia in order to find out the number of incidence of toddlers congenital reproductive disorder and held the early detection.

**Materials & Methods:** This is observational descriptive study. Screening was held in Posyandu Matahari which located in Gedung Serbaguna Rw. 14, Bunulrejo, Jodipan, Blimbing, Malang, in October 27, 2018. It used 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

**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 UDT (6.52), who were referred to urology clinic in Saiful Anwar General Hospital to undergo further examination and treatment.

**Conclusion:** The incidence of toddlers reproductive disorder of this event was 30,43%, showed that this age group (1-5 years old) had significant amount of congenital reproductive disorder and screening played 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 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 of early detection of reproductive health disorder. There was a study which suggested that there was at least one congenital disorder every 100 live births. The congenital reproductive disorder are mostly found in type of hypospadias, enlarged clitoris, micropenis, fusion of labiamajora, and genital ambiguity.<sup>1,2</sup>

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Data collected in Saiful Anwar General Hospital revealed that 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 found 12 cases from period of 2015-2017, with 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 PosyanduMatahari which located in GedungSerbagunaRw. 14, KelurahanBunulrejo, KelurahanJodipan, KecamatanBlimbing, Malang, East Java, Indonesia in order to find out the number of incidence of toddlers congenital reproductive disorder and held the early detection.

**Material & Methods**

The screening event was held in PosyanduMatahari which located in GedungSerbagunaRw. 14, Kelurahan Bunulrejo, Kelurahan Jodipan, Kecamatan Blimbing,

Malang, in October 27, 2018. It used 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 patient would be directed to urology clinic in Saiful Anwar General Hospital for thorough analysis and treatment.

**Result**

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 fromphimosis, 1 toddler with Hydrocele, and 3 toddlers suffered from Undescended testis/UDT) who were referred to urology clinic in Saiful Anwar General Hospital to undergo further examination and treatment. Patient characteristics are tabulated in Table 1.

**Table 1. Characteristics of toddlers in the screening**

Characteristics		Total	%
Mean Age (2 years old)		46	100
Mean Weight (11 kg)		46	100
Mean Height (90 cm)		46	100
Gender		N	%
	Boy	44	95.65
	Girl	2	4.35
Reproductive .Disorder		N	%
	Phimosis	10	21.74
	Hydrocele	1	2.17
	UDT	3	6.52
	Normal	32	69.57

## Discussion

The screening is one of the tools used in epidemiology to figure out 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 of early detection of reproductive health disorder. The Congenital reproductive disorder are mostly found in type of hypospadias, enlarged clitoris, micropenis, fusion of labiamajora, and genital ambiguity.<sup>1,2</sup>

Unfortunately, majority of screening 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 teenager group (10-19 years old) was one fifth of the world populations 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 inconclusive approach to the congenital genital problem.<sup>3,4,5</sup>

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

About 1–3 % of newborn baby suffers from hydrocele or hernia and around 6% of fullterm boys are with clinical hydrocele. In baby before 1 year old, hydrocele can be self-resolving and only needs conservative treatment.<sup>6</sup> In this event, it was found hydrocele 2.17%.

Undescended testis (UDT) is mostly found in preterm infant. The prevalence rate of UDT in premature infant in United States is 30%. Globally, the incidence of UDT is found 3-4% in newborn baby but it will decrease from the age of 3 months and only less than 1.0% in one year old boy.<sup>7,8,9,10</sup> 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 disorder earlier. Because of the objective of this event were 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 knowledge 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 distribution table. Besides that, the number of population in this study was relatively small, thus it would be needed more advance research to study the causative factors and affecting factors and the relationship between them.

## Conclusion

The incidence of toddlers reproductive disorder of this event was 30,43%, showed that this age group (1-5 years old) had significant amount of congenital reproductive disorder and screening played important role for early detection and improving parental knowledge to prevent the delay of treatment for reproductive disorder. Regardless of the number of participant, this study brought new dimension of improving toddlers reproductive health service through screening, early detection and prompt treatment afterwards.

**Ethical Clearance** : Saiful Anwar Hospital Ethics Committee No 8390/89/k.2/207/2021

**Conflict of Interest** : Nil

**Source of Fund** : Self

## References

1. Chandra B. *Ilmukedokteranpencegahan & komunitas*. 1sted. Jakarta: PenerbitBukuKedokteran EGC; 2009.

2. Monlleó IL, Zanotti SV, Araújo BPBD, et al. Prevalence of genital abnormalities in neonates. *Jornal de pediatria*. 2012;88(6), 489-495.
3. Kementerian Kesehatan Republik Indonesia. Profil kesehatan Indonesia 2009. Jakarta: Kementerian Kesehatan RI; 2010.
4. WHO. The sexual and reproductive health of younger adolescents: research issues in developing countries: background paper for a consultation [homepage on the internet]. Available from: [http://whqlibdoc.who.int/publications/2011/9789241501552\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789241501552_eng.pdf).
5. World Health Organization. Promoting adolescent sexual and reproductive health through schools in low income countries: an information brief [homepage on the internet]. Available from: [http://whqlibdoc.who.int/hq/2009/WHO\\_FCH\\_CAH\\_ADH\\_09.03\\_eng.pdf](http://whqlibdoc.who.int/hq/2009/WHO_FCH_CAH_ADH_09.03_eng.pdf)
6. Tekgul S, Dogan HS, Hoebeke P, et al. EAU guidelines on pediatric urology. 2020. *European Association of Urology*. 2016; 290-323
7. Braga LH, Lorenzo AJ. Cryptorchidism: a practical review for all community healthcare providers. *Canadian Urological Association Journal*. 2017; 11(1-2Suppl1), S26.
8. Leslie SW, Villanueva CA. Cryptorchidism. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2019. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK470270/>
9. Soesanti F. Undescensus testis: the pediatric endocrinology point of view. In: Trihono P, Djer M, Citraresmi E, editors. *Practical Management in Pediatrics*. IX. Jakarta: PKB IDAI Jaya; 2014.
10. Abaci A, Catli G, Anik A, Bober E. Epidemiology, classification and management of undescended testes: does medication have value in its treatment? *Ayhan. J Clin Res Pediatr Endocrinol*. 2013;5:65–72.