CLINICAL PROFILE OF PATIENTS WITH UNDESCENDED TESTIS IN TERTIARY HOSPITAL

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ABSTRACT

Objective: *The objective of this study is to present the clinical profile of patients with UDT in tertiary hospital.* ***Material &Methods:*** *This study used a descriptive retrospective approached with approved ethical number 400/019/K.3/102.7/2024. Collecting identification was done by tracing UDT case-patient documents from January 2015 to December 2023. The characteristics observed were age, location of UDT, unpalpable or palpable, patient's address, and antenatal care examination.* ***Results:*** *From 107 UDT patients,16 patients (24.31%)was diagnosed at the age19 until 24 months old and decreased in puberty ages. 74 cases of UDT (69.16%) are unilateral UDT with almost the same distribution between left and right. In 75 cases of unpalpable UDT (70.09%), it was found that the testis were still viable in 57 cases during diagnostic laparoscopic. On average, there are 63 patients (58.87%) coming from the Malang area. The average number of patients receiving antenatal care from midwives is 61 cases (62.61%).* ***Conclusion:*** *In all, many cases of UDT under 12 years old were found, with the majority is Unpalpable Unilateral UDT, patient come from the Malang area and have received antenatal care from midwives. The data obtained can be used as a database for enhancing the standard of care.*

Keywords : *Clinical profile, UDT, Malang.*

ABSTRAK

Tujuan: *Tujuan dari penelitian ini adalah untuk menyajikan profil klinis pasien UDT di rumah sakit tersier.* ***Bahan & Cara:*** *Penelitian ini menggunakan pendekatan deskriptif retrospektif dengan nomoretik yang disetujui 400/019/K.3/102.7/2024. Pengumpulan identifikasi dilakukan dengan menelusuri dokumen pasien kasus UDT pada bulan Januari 2015 hingga Desember 2023.Karakteristik yang diamati adalah usia, lokasi UDT, tidak teraba atau teraba, alamat pasien, dan pemeriksaan antenatal care.* ***Hasil:*** *Dari 107 pasien UDT, 16 pasien (24.31%) terdiagnosis pada usia 19 hingga 24 bulan dan menurun pada usia pubertas. 74 kasus UDT (69.16%) merupakan UDT unilateral dengan sebaran hampir sama antara kiri dan kanan. Pada 75 kasus UDT yang tidak teraba (70.09%), ditemukan bahwa testis masih dapat hidup pada 57 kasus selama laparoskopi diagnostik. Rerata pasien yang berasal dari wilayah Malang berjumlah 63 orang (58.87%). Rerata jumlah pasien yang mendapat pelayanan antenatal dari bidan sebanyak 61 kasus (62.61%).* ***Simpulan:*** *Secara keseluruhan kasus UDT dibawah 12 tahun banyak ditemukan, mayoritas merupakan UDT Unilateral tak teraba, pasien berasal dari daerah Malang dan telah mendapat pelayanan antenatal dari bidan. Data yang diperoleh dapat digunakan sebagai database untuk meningkatkan standar pelayanan.*

Kata kunci: *Profilklinis,UDT, Malang.*

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INTRODUCTION

Undescended testis (UDT) or cryptorchidism is a testicular disorder in children due to the failure of one or both testicles to descend between the abdominal cavity and the scrotum.[1] The incidence rate is 4-5% in term male infants and is increased in neonates born prematurely and with low birth weight. With increasing age, the testes spontaneously descend by about 70% at 3 months of age and at 6 months to 8%.[2] The etiology of cryptorchidism remains largely unknown, and several hypotheses have been proposed. Among other things, placental dysfunction with decreased hCG secretion may be responsible for hormonal and other disturbances during this period of fetal life. According to some researchers, the main fault lies with the testes themselves.[3]

UDT is one of the most common congenital abnormalities associated with infertility and

testicular cancer.[4] It has been reported that the risk of developing malignant degeneration in cases of undescended testes is 3-10 fold higher compared to the normal population, but bringing the testes into the scrotum does not reduce this risk, but can stop the degeneration process.[5] After 4 to 6 months, testes tends to go down spontaneously. As a result, about a third of UDT cases persist. This condition requires surgical intervention with orchidopexy to repair the testes in the scrotum.[6] The preferred age for orchiopexy is before the completion of the first year of life. Surgery during this particular period may provide optimal results in fertility and protection against testicular cancer. Therefore, the earlier the patient undergoes surgery, the better the expected outcome.[7] Current guidelines recommend orchidopexy at 6 to 12 months of age and not later than 18 months.[8]

The delay rate in referring UDT patients to health facilities for correction is still relatively high. This incident does not only occur in developing countries such as Indonesia, developed countries such as Canada, Germany and New Zealand are also facing the same problem.[9] Many UDT patients come to RSUD Dr. Saiful Anwar, Malang, but there is no data on patient characteristics which include the number of patients, age at arrival, reasons for late therapy, patient profiles, and follow-up after therapy so that further research is needed regarding this condition.

OBJECTIVE

This study aims to determine the characteristics of testicular undescended patients who come to RSUD Dr. Saiful Anwar, Malang.

MATERIAL & METHODS

This study used a descriptive retrospective approached with ethical approval has been issued with number 400/019/K.3/102.7/2024, collecting identification was done by tracing UDT case-patient documents from January 2015 to December 2023. The characteristics observed were age, location of UDT, unpalpable or palpable, patient's address, and antenatal care examination. Exclusion criteria were DSD, retractile testis, hypospadias, certain syndromes or multiple anomalies.

RESULTS

The majority of patients when first diagnosed were aged 19 months old until 24 months old as many as 26 patients (24.31%) and decreased in puberty ages. 74 cases of UDT (69.16%) are unilateral UDT with almost the same distribution between left and right. In 75 cases of unpalpable UDT (70.09%), it was found that the testis were still viable in 57 cases during diagnostic laparoscopic. On average, there are 63 patients (58.87%) coming from the Malang area. The average number of patients receiving antenatal care from midwives is 61 cases (62.61%), while from obstetricians, it's 32 cases (29.91%).

Table 1. Clinical profile of patients with undescended testis in tertiary hospital.

Characteristics	N	%
Age		
0-18mo	17	15.88
19-24mo	26	24.31
3-5yo	25	23.36
6-8yo	15	14.02
9-11yo	14	13.08
12-14yo	5	4.67
15-17	3	2.82
>17	2	1.86
Total	107	100
Location		
Bilateral	33	30.84
Unilateral	74	69.16
- Right	38	51.35
- Left	36	48.65
Total	107	100
Palpable/Not Palpable		
Unpalpable	75	70.09
*After Diagnostic Laparoscopic		
- Viable Testis	57	76
- Other	18	24
Palpable	32	29.91
- Inguino-scrotal	26	81.25
- Testicular retractile	6	18.75
Total	107	100
Address		
Malang Area's	63	58.87
Other City	44	41.13
Total	107	100
Antenatal Care		
Never	8	7.48
Midwife	67	62.61
Obstetricians	32	29.91
Total	107	100

DISCUSSION

UDT is one of the most frequently found congenital abnormalities, occurring in 1-4% of term births and 1-45% of premature male neonates.[10] Examination of the testicles by health workers is still not a routine procedure for examining newborns. In fact, proper examination at birth needs to be carried out by every health worker or during routine inspection visits, to detect UDT cases at an early stage.[11]

In this study it was found that the most age when patients were diagnosed was before 2 years old. Research in Bulgaria obtained better data, 3.2% were found at the age of under one year and 2.1% at the age of 1-10 years.[12] UDT therapy should be done at the age of six months to two years, either with hormonal therapy or orchiopexy.[12] Neel studied orchidopexy at two hospitals in Riyadh, Saudi Arabia, and found that 45% of patients were diagnosed with UDT after one year of age. Sharif et al. analyzed cases at King Fahad Hospital, Al Baha, SA, from 2011 to 2013. They reported that the median age at surgery was nearly three years, with 41.3% of boys who underwent orchidopexy were older than two years.[8] As it is known that after the age of 2 years, one-fifth of the testicular germ cells have been damaged,[8] can increase the risk of infertility, and germ cell tumors.[11]

The most common location for UDT was unilateral in 74 children (69.16%) with an almost equal distribution between left and right. Mallikarjuna et al. and Ashley et al. also reported similar results where the majority of UDTs were unilateral with the most common side being the right side.[13] Most UDT was unpalpable in 75 children (70.09%). This finding is consistent with the findings of another study, which found nearly one-third of cases had testes that were unpalpable. However, in another study, a much lower percentage of UDT (10%) was unpalpable.[14] Among the 20% of testicles that are unpalpable, 50%-60% are intra-abdominal testicles, canaliculi or are in the internal inguinal ring. Meanwhile, 30% experienced atrophy or rudimentary and the remaining 20% were absent.[15]

The average patient came from Malang City as many as 63 children (58,87%).The majority of patients took antenatal care to the midwife for 67 children (62.61%). For educational background, the majority of parents are graduated from junior high school and the reason for the delay in patient treatment was due to lack of parental knowledge. This study found that factors that play an important role in the delay of surgical procedures to treat UDT are late referrals from previous doctors (primary care doctors and pediatricians) and undiagnosed UDT conditions in patients. These factors depend on the doctor or health worker who receives the patient before the patient sees a urological surgeon. For example, the doctor's advice is to wait until there is spontaneous density which makes the patient's parents' awareness decrease and then causes loss to follow-up.[2]

Misdiagnosis by doctors and health workers is a factor that causes delays in referring UDT cases to urologists. This supports the risk of late referral as in the study by Seddon et al., who said that UDT that was misdiagnosed/undiagnosed at birth and advice by medical personnel ($p < 0.005$) to wait for spontaneous onset which was then not followed up were the most significant factors causing referral delay.[15] Some parents lack awareness regarding the risks of delayed surgical intervention, which plays an important role in the incidence of late referrals to hospital. Lack of knowledge about the disease and wrong assumptions among patients' parents about operations performed at an early age are also risk factors that cause delays in patient referrals to UDT. Two factors that depend on doctors/health workers and those that depend on parents are interrelated. It has previously been reported that the presence of genitourinary malformations is a factor that causes the patient's parents to be unaware of the presence of UDT in their child.[2]

All of these findings suggest that the scarcity of screening and diagnosis in primary health care facilities plays an important role in the late presentation of care. Thus, it is necessary to carry out awareness campaigns and reorient doctors about the importance of comprehensive neonatal examinations to optimize the possibility of early detection and referral. An effective way to raise awareness is to use physicians' Continuing Medical Education activities to promote programs that emphasize thorough screenings, increased health education capabilities, and early referral of patients with UDT.[16]

In addition, this research was conducted in Malang, a city surrounded by a large countryside. The majority of the population is rural and has less health education. In several situations in rural areas in Indonesia, ignorance and lack of health education have influenced health seeking behavior. This condition has a significant impact on delays in

referral of UDT patients. Cultural-based awareness-raising efforts among parents may be quite effective in increasing public awareness about UDT.[16]

CONCLUSION

Despite early diagnosis has been made in many UDT patients, the most common location is unilateral and unpalpable. Most patients were referred and operated after 1 year of age. Delays in treatment are caused by a lack of parental knowledge in bringing the patient to a health facility.

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