

POLYORCHIDISM

*Leyla Nur TURKER*¹
*Efe DİLEK*²
*Bensu Şule BÜLBÜL*³
*Suleyman YEŞİL*⁴
*Ramazan KARABULUT*⁵

Polyorchidism (supernumerary testicle (SNT)) is a rare embryological anomaly with more than one testicle on one or both sides. No chromosomal anomaly causing polyorchism has been detected for karyology. More than 200 cases have been described in the literature so far. While polyorchism is mostly diagnosed incidentally, painless swelling in the inguinal or scrotal region is seen in 16% of cases. It is mostly detected between the ages of 11-25, with an average age of 17 year. Polyorchism was unilateral and located on the left side (65%), 30% on the right side, and 5% bilateral. SNT cases are located in the scrotum in 66%, inguinal in 23% and abdominal in 9%. Polyorchidism may be accompanied by inguinal hernia in 24%, undescended testicle in 22%, testicular torsion in 15%, epididymitis in 5%, and sometimes varicocele (1-5). The common reason for torsion is the absence of gubernaculum and connections between the epididymis and scrotal wall. While cases mostly present as triorchidism, two on one side,

¹ MD, Gazi University Faculty of Medicine, Department of Pediatric Surgery, leyla.turker.24@gmail.com, ORCID iD: 0009-0009-3975-6300

² MD, Gazi University Faculty of Medicine, Department of Pediatric Surgery, efedilek94@gmail.com, ORCID iD: 0000-0001-9624-3258

³ MD, Gazi University Faculty of Medicine, Department of Pediatric Surgery, bensusulebulbul@gmail.com, ORCID iD: 0009-0002-9161-3437

⁴ Prof.MD, Gazi University Faculty of Medicine, Department of Pediatric Surgery, syesil2003@yahoo.com, ORCID iD: 0000-0002-0437-9615

⁵ Prof.MD, Gazi University Faculty of Medicine, Department of Pediatric Surgery, karabulut@yahoo.com, ORCID iD: 0000-0001-9624-3258

itored conservatively after the possibility of malignancy has been excluded by physical examination, hormonal and radiological examination. In addition to annual medical check-ups and ultrasound follow-up, self-examination should also be applied (1,2,10-12).

REFERENCES

- Balawender K, Wawrzyniak A, Kobos J, Golberg M, Żytkowski A, Zarzecki M, Walocha J, Bonczar M, Dubrowski A, Mazurek A, Clarke E, Polguy M, Wysia-decki G, Smędra A. Polyorchidism: An Up-to-Date Systematic Review. *J Clin Med.* 2023 Jan 13;12(2):649. doi: 10.3390/jcm12020649.
- Pliszka A, Wawrzyniak A, Walocha J, Musiał A, Bonczar M, Ostrowski T, Polguy M, Wysia-decki G, Clarke E, Tubbs RS, Balawender K. Embryological basis of polyorchidism including classification, reproductive potential, and risk of malignancy: A review. *Clin Anat.* 2023 Jul 26. doi: 10.1002/ca.24093
- Aldughiman AW, El-Tholoth HS, Alsunbul A, Badawy E, Alelaiwai A. Management of polyorchidism in a prepubertal boy: A case report and literature review. *Urol Ann.* 2020 ;12(4):385-387. doi: 10.4103/UA.UA_154_19.
- Otero J, Ben-Yakar N, Alemayehu B, Kozusko SD, Borao F, Vates Iii TS. A Unique Case of Intraabdominal Polyorchidism: A Case Study. *Case Rep Urol.* 2016;2016:2729614. doi: 10.1155/2016/2729614.
- Xiaofei L, Benzhang Z. Case Report: Testicular Torsion in Unilateral Supernumerary Testis. *Front Pediatr.* 2022;10:823374. doi: 10.3389/fped.2022.823374.
- Leung AK. Polyorchidism. *Am Fam Physician.* 1988;38(3):153-6. PMID: 3046267.
- Bergholz R, Koch B, Spieker T, Lohse K. Polyorchidism: a case report and classification. *J Pediatr Surg.* 2007;42(11):1933-5. doi: 10.1016/j.jpedsurg.2007.07.031.
- Kanbar A, Dabal C, El Khoury J, Halabi R, Assaf S, Mina A, Breidi S, Abdessater M, El Khoury R. Diagnosis and Management of Polyorchidism: A Case Report and Literature Review. *Case Rep Urol.* 2023 Jun 22;2023:1620276.
- Aitharaju V, Drevna DW, Barr RG. Polyorchidism: A Review of the Literature and Case Report of a Third Testicle Presenting as an Inguinal Hernia. *Ultrasound Q.* 2022 Sep 1;38(3):222-223. doi: 10.1097/RUQ.0000000000000584
- Núñez García B, Álvarez García N, Pérez-Gaspar M, Esteva Miró C, Santiago Martínez S, Betancourth Alvarenga JE, San Vicente Vela B, Jiménez Gómez J, Jiménez Arribas P. Polyorchidism in pediatric patients: a case report and a literature review. *Cir Pediatr.* 2021;34(3):160-163.
- Arena L, Szklarz T, Costabel M, Maguiña P, De Carli C. A Case of Conservative Management of Intra-abdominal Polyorchidism in a Child. *Urology.* 2023;176:187-189. doi: 10.1016/j.urology.2023.03.005.
- Nurfajri DH, Pranoto D, Pramod SV, Safriadi F, Hernowo BS. Polyorchidism and testicular malignancy, what can we learn: A case report. *Urol Case Rep.* 2021;39:101828. doi: 10.1016/j.eucr.2021.101828.