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Abstract

***Background*:** Circumcision, a common surgical operation involving the removal of the foreskin for religious, cultural, and medical reasons, is one of the oldest surgical procedures. Delay in plastibell ring fall-off causes unacceptable sequelae such as penile necrosis, amputation, anxiety to the carers. Several studies have documented the time of fall of plastibell ring; however, there is a dearth of systematic review on the factors that influence the time of ring fall-off.

***Aim*:** In addition to determining the complication of plastibell circumcision, this review aimed to analyse the factors determining the time of ring fall off and how they correlate to the timing of fall off.

***Methodology*:** Data was collected from PubMed, EMBASE, and Scopus databases using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines.

***Results*:** The younger infants have an earlier average fall time with 7 days and 9 days for 3 months and 8 months old infants respectively. Use of a sitz bath ensures an average fall-off time of 7 days compared to 9 days if the sitz bath was not used. Polypropylene has a shorter fall-off time than cotton and a smaller plastibell thread size causes earlier fall-off. Ring retention and bleeding were the commonest complications with 25.8 and 17.1% occurrence respectively.

***Recommendations*:** There is need to design algorithms consisting of a combination of these factors affecting the time of plastibell ring fall-off in order ensure the earliest possible time of fall-off.

***Conclusion*:** Conclusively, the study showed that the plastibell ring falls off earlier for younger infants, with the use of sitz bath, and in case of a smaller plastibell thread.

Keywords: *circumcision*; *urology*; *plastibell*; *ring fall-off*

References

1. Harris TGW, et al. Surgical approach to penile reconstruction for shaft skin excision from circumcision. Pediatr Surg Int 2023; 39(1): 138. doi: 10.1007/s00383-023-05409-x
2. Aina AO. Post circumcision complications. W Afr J Surg 1979; 3(3): 153–7.
3. Leitch IOW. Circumcision: a continuing enigma. Aust Paediatr J 1970; 6: 59. doi: 10.1111/j.1440-1754.1970.tb02863.x
4. Ahmed N, et al. Circumcision with the plastibell technique: a descriptive case series. Cureus. 2022; 14(10): e30601. doi: 10.7759/cureus.30601
5. Altokhais T, et al. Neonatal plastibell circumcision: does the thread type matter? A prospective randomized study. J Pediatr Urol 2019; 15(5): 562. e561–5. doi: 10.1016/j.jpurol.2019.07.015
6. Jimoh BM, et al. Plastibell circumcision of 2,276 male infants: a multi-centre study. Pan Afr Med J 2016; 23: 35. doi: 10.11604/pamj.2016.23.35.7841
7. Bellieni CV, et al. Analgesia for infants' circumcision. Ital J Pediatr 2013; 39: 38. doi: 10.1186/1824-7288-39-38
8. Moosa FA, et al. Comparison of complications of circumcision by 'Plastibell device technique' in male neonates and infants. J Pak Med Assoc 2010; 60(8): 664–7.
9. Bode CO, et al. Penile injuries from proximal migration of the plastibell circumcision ring. J Pediatr Urol 2010; 6(1): 23–7. doi: 10.1016/j.jpurol.2009.05.011
10. Talini C, et al. Circumcision: postoperative complications that required reoperation. Einstein (Sao Paulo) 2018; 16(3): eAO4241. doi: 10.1590/s1679-45082018ao4241

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Determinants of the time of ring fall-off in plastibell circumcision: a systematic review

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