SUMMARY

A prospective randomized trial of the use of a locally fabricated disposable plastic device (DPD) for newborn circumcision in comparison with plastibell was carried out at Baptist Medical Centre (BMC), Ibrahim Taiwo Maternity Centre (ITMC), and Alata Maternity Centre (AMC), all in Ogbomoso. Three hundred and twenty male newborns aged 8 to 60 days inclusive (mean 20.3 days) were randomly circumcised with either device and followed up over a period of 12 months, from 1st August 1997 to 31st July 1998 both dates inclusive.

Comparative studies were made with respect to outcomes and cost of the two devices (DPD and PB) for circumcision. For the outcomes of use, the frequencies of complications, parental satisfaction and post circumcision cosmetic outcome were considered while the procedure time, the duration in days for the ring to separate and the cost of procurement of the respective device were used as parameters for cost. Of the 320 male newborns circumcised, 313 were assessed for complications, 311 for parental satisfaction and 310 for cosmetic outcome and duration in days for device ring to separate.

The overall incidence of complications for both devices was 8 percent (25 of 313) or 80 per thousand male newborns.

More complications occurred with plastibell circumcision than with the new device (16 vs. 9) but not statistically significantly so. (P>.05)

Complications were commoner in neonates (8 to 28 days old) than in the older infants.

Complications encountered were never serious and were amenable to treatment.

The complications in descending order of frequencies were infections (6), dislocation (6), penile oedema (5) bleeding (3), skin bridging (2), redundant foreskin (2) and one case of shaft denudation. One case of redundant skin resulting from DPD use had circumcision revision done.

Parental satisfaction with respective device used and post circumcision cosmetic outcome from both devices were comparably good across centres and age groups.

The mean procedure time for DPD was 7 min 34 seconds while that for PB was 7 minutes 55 seconds.

The mean duration in days for the ring to drop off for both devices was 4 days. However, PB ring was found to drop off earlier in older newborns than DPD ring. P ≤ 0.05.
The DPD with its ligature cost N50 while PB kit cost N150 during the study period. Since the same benefit was achieved at lower cost when DPD was used for circumcision in comparison with PB the author hereby recommends adoption, modification and standardization of DPD construction technology for use in male newborn circumcisions.

A call is made to paediatric urologists, plastic surgeons and family physicians world wide to draw out standardized specifics regarding interpretation of normalcy in the appearance of well circumcised penis at different age groups to continuously educate would-be circumcisers about the risks vis-à-vis the benefits of this simple but delicate surgery.