

**Original research article****Indications for circumcision: Descriptive clinical study**

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**Abstract**

Circumcision has traditionally been practiced through most of Africa, much of Asia, most of Australia, Polynesia and Melanesia, large parts of South and Central America, and smaller areas of North America. No other cultural practice, except the use of fire and the manufacture of stone tools, has such a global distribution. All the patients were personally subjected to detailed history regarding name, age, occupation, socioeconomic status and general physical examination. Patients with active infection like balanoposthitis were administered antibiotics and circumcision was done on a later date. Patients with diabetes mellitus were evaluated and if not under control, appropriate glycemic control was achieved and were later posted for circumcision. It is evident that majority of patients underwent circumcision on grounds of phimosis, i.e. 45% of patients followed by circumcision on grounds of religious/cultural reasons, i.e. 20%. One of the patients had attempted self-circumcision using a blade at his residence, and hence completion circumcision was done.

**Keywords:** Circumcision, phimosis, balanoposthitis

**Introduction**

Circumcision is one of the oldest but most controversial surgical procedures worldwide. However, iconographic evidence puts circumcision much further back – well into the Palaeolithic period, with many cave paintings and sculptures showing circumcised penises. By Egyptian times, around 5,000 years before present, circumcision was well documented, recorded in pictures and texts. Most Egyptian mummies are circumcised, providing the first tangible evidence of the operation <sup>[1]</sup>.

Grave statues and figures show common folk and also pharaohs at different ages with a circumcised penis <sup>[2]</sup>.

Circumcision has traditionally been practiced through most of Africa, much of Asia, most of Australia, Polynesia and Melanesia, large parts of South and Central America, and smaller areas of North America. No other cultural practice, except the use of fire and the manufacture of stone tools, has such a global distribution. This suggests that, like the use of fire and stone tools, circumcision was one of the cultural practices, carried by the original *Homo sapiens* migrating out of Africa <sup>[3]</sup>.

Relevant here, too, is that the nineteenth-century Zulu king Chaka banned circumcision because young men, once circumcised, were more interested in sex than in being warriors in the army he was building to unite southern Africa under his reign <sup>[4]</sup>. A few cultures retain a custom of formal postpubertal foreskin retraction (defloration). Thus the Luo of Kenya (the only non-circumcising tribe in Kenya) have a ritual of forcibly retracting the prepuce, a practice they regard as equivalent to circumcision. Likewise, in Polynesia, some cultures have a custom of formally retracting a boy's prepuce followed by first intercourse with an older woman – while girls undergo an identical symbolic defloration by an older man. In the Polynesian case, though, the boy is later circumcised <sup>[5]</sup>.

The simplest, commonest, and almost certainly oldest surgical technique is to pull the foreskin forward, and cut through it in front of the glans. The released outer skin springs back down the penile shaft and the remaining inner foreskin is pushed back to meet it, becoming the skin of the distal part of the penile shaft. A refinement is to clamp the skin in front of the glans, thereby reducing the risk of damage to the glans and providing a degree of hemostasis. Tribal Arabs just used string, but many tools have been used for the task including metal, wood, or ivory slit shields and clamp forceps <sup>[6]</sup>.

**Methodology**

All the eligible patients admitted in Hospital, Bengaluru, who will undergo Circumcision during the study period were included.

## Data collection and evaluation

It's a hospital based prospective observational study. All the eligible patients, admitted to Hospital, found to have phimosis, BXO and circumcision on religious grounds were evaluated.

Written informed consent of the patient/attender was obtained.

A detailed clinical history, physical examination and relevant investigations required for the study were done.

## Study Design

Prospective and observational study.

## Duration of study

1 year 6 months

## Inclusion criteria

- Acquired phimosis
- Balanitis xerotica obliterans,
- Previous history of paraphimosis
- Religious and cultural reasons

## Exclusion criteria

- Newborns excluded
- Infants with hypospadiasis
- Patients with bleeding diathesis

## Study Procedure

All the patients were personally subjected to detailed history regarding name, age, occupation, socioeconomic status and general physical examination. Patients with active infection like balanoposthitis were administered antibiotics and circumcision was done on a later date. Patients with diabetes mellitus were evaluated and if not under control, appropriate glycemic control was achieved and were later posted for circumcision (since balanoposthitis is sometimes first presentation of DM patients)

All patients were given a single dose of IV antibiotic prior to the procedure. The procedure was done under dorsal penile block for all patients aged above 10 years of age. Patients under the age of 10 years were put under general anesthesia and then circumcision was carried out.

## Results

The Age distribution of the study participants is shown in the table and graph below

**Table 1:** Age distribution

Age in years	No. of patients	Percentage (%)
1-10	10	25.0
11-20	4	10.0
21-30	10	25.0
31-40	6	15
41-50	5	12.5
51-60	2	5
>60	3	7.5
Total	40	100

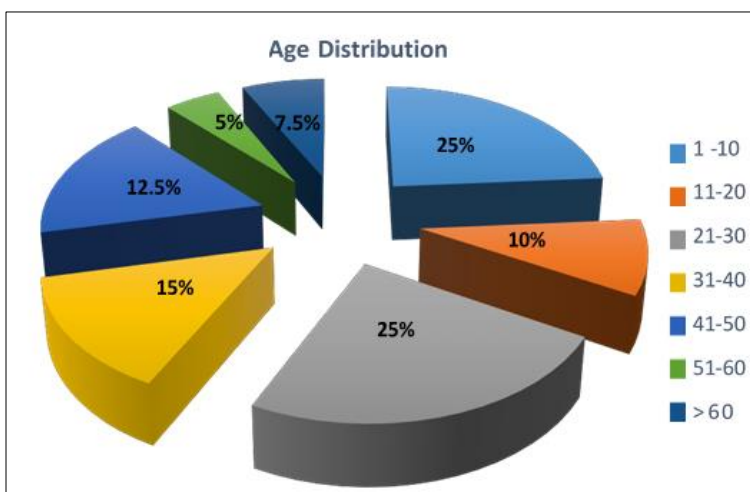


Fig 1: Age distribution of the study group

From the above table it is clearly evident that majority of the patients fall in the category of age between 1-10 yrs and 21-30 yrs i.e 25%, followed by age 31-40 yrs, i.e. 15%.

Table 2: Indications for circumcision

Indication	No. of patients	Percentage (%)
Phimosis	18	45
Lichen sclerosis	3	7.5
Paraphimosis	4	10
Religious / cultural	8	20
Balanoposthitis	6	15
Other	1	2.5
Total	40	100

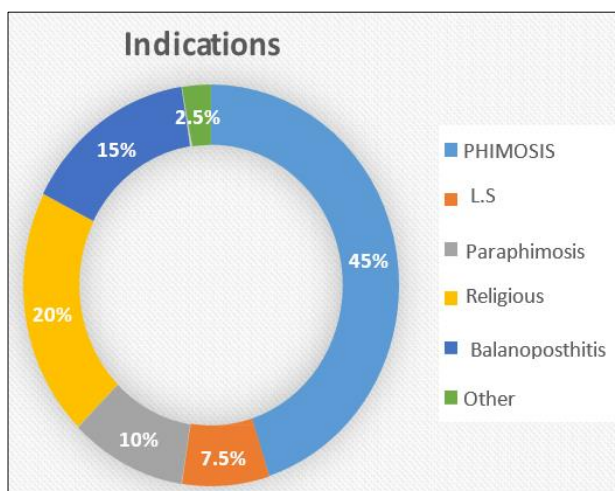


Fig 2: Etiological distribution of the study

It is evident from the table and figure that majority of patients underwent circumcision on grounds of phimosis, i.e 45% of patients followed by circumcision on grounds of religious/cultural reasons, i.e 20%. One of the patients had attempted self-circumcision using a blade at his residence, and hence completion circumcision was done.

**Discussion**

Globally, 37-39% of men are circumcised. Most circumcisions are performed in non-European countries from infancy to early childhood for cultural and religious as well as hygienic reasons. In Western countries, circumcision is performed mainly for medical reasons. Also due to the reduced transmission of sexually transmitted diseases, there is a rising trend towards circumcision observed. The age distribution of patients in this study at the time of surgery ranged from 2 years to 64 years. Majority of the patients are in the age bracket of 1-10 years followed by 21-30 years. If one compares our patient group in terms of age with information from the literature, it can be observed

that these correlate with our data. In a study conducted by I.D Fraser and A.C. Goede 2002 <sup>[7]</sup>, the age distribution was 2.7-61. 7 years represented a predominantly paediatric practice.

In a study by Hiren Vaidya. *et al*, 2021 <sup>[8]</sup>, which compared glue vs suture circumcision and comprised of 120 patients. The commonest age group was 1-10 years. Thirty (54.55%) patients in glue group and 22 (33.85%) patients in suture group belonged to this age group.

In a study by Pradeep P Sharma <sup>[9]</sup>, a non comparative glue circumcision study. Fifteen healthy young males from the age of 2 yrs to 25 yrs, during a period Jan 2003 to Dec 2003 comprised the study group which is comparable to our study.

In a study by Hiren Parmar and Krupal Solanki <sup>[10]</sup>. This was a prospective non- comparative preliminary clinical study involving 30 patients where 2- octyl cyanoacrylate was used as a tissue adhesive for wound closure after formal circumcision. 30 healthy male patients from the age of 1 year to 75 years, during a period of May 2008 to Nov 2010 comprised of study group in this study, most of the patients (53.33%) were in age group of 1-10 years, comparable to our study.

We included all patients with varied etiology in the present study. Indication for circumcision in patients of age group of 1-10 years was mainly religious/cultural and for patients in age group 21-30 years was secondary phimosis due to balanoposthitis. Patients with active infection were given antibiotics followed by circumcision on a later date. 3 patients were suspected with LS, hence excised prepuce was sent for HPE and reports came positive for LS.

## Conclusion

It is evident that majority of patients underwent circumcision on grounds of phimosis, i.e 45% of patients followed by circumcision on grounds of religious/cultural reasons, i.e 20%.

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