CIRCUMCISION BY BONE CUTTER-IS IT SAFE?

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ABSTRACT

Objective: To determine the frequency of complications observed in circumcisions performed using closed method and to ascertain its safety in relation to pediatric penile trauma.

Study Design:Quasi-experimental study.

Place and Duration of Study: Study was conducted in departments of surgery of combined military hospitals of Cherat, Khuzdar and Malir from Jan 2008 to Dec 2009.

Patients and Methods: Two hundred and fifty patients were included through the outpatient department for elective circumcision. Male children from 1 week of age to 1 year were included, circumcision being performed for ritual purpose. Exclusion criteria was those male children having deranged coagulation profile, neonatal jaundice, congenital urogenital abnormalities and any other disease. Circumcision was performed using closed technique by bone cutter.

Results: Out of the total 250 cases, the success rate of circumcision without any complication was recorded in 229 (91.6%) cases. The remaining 21 (8.4%) cases developed minor complications. Infection was recorded in 7 children (2.8%).Some degree of bleeding was observed in 10 (4%) cases which require change of dressing in 8 cases and haemostasis by application of stitches in 2 cases. Redo surgery was done in 4 (1.6%) cases for unsatisfactory cosmetic reasons. None of the patients in our study sustained trauma to glans.

Conclusion: Although it is not a standard procedure, Close method of circumcision by bone cutter is an established and safe technique if it is performed by trained practitioners. We suggest that training workshops should be organized to adequately train all practitioners of circumcision on the safe methods available.

Keywords: Bone cutter, Circumcision, Traditional circumcisers.

INTRODUCTION

The origin of circumcision is shrouded in antiquity. Mummies 6000 years old have been reported to show evidence of circumcision[1].

Circumcision is performed on an estimated one out of six male newborns worldwide[2]. In Pakistan it is performed on almost all male children of Muslim families. Majority of these circumcisions are performed by traditional circumcisers (barbers, dressers) who practice bone cutter method as it is a simple method and easy to learn and perform.

Penile trauma is associated more frequently with guillotine style of circumcision including glans amputation in both local[3] and international studies[1].This study was conducted to find out the frequency of complications associated with this method and compare our results in terms of complications especially trauma to glans with other studies and hence to ascertain the safety of procedure.

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Received: 15 Jul 2013; revised received: 20 Feb 2014; accepted: 25 Feb 2014

PATIENTS AND METHODS

This quasi-experimental study was conducted in departments of surgery of Combined Military Hospitals of Cherat, Khuzdar and Malir from Jan 2008 to Dec 2009.Two hundred and fifty patients were included through the outpatient department for elective circumcision. Male children from 1 week of age to 1 year were included, circumcision being performed for ritual purpose. Those male children having deranged coagulation profile, neonatal jaundice, congenital urogenital abnormalities and any other disease were excluded from the study. The sample size used was 250 and patients were selected through convenient sampling technique. Descriptive statistics were computed for data presentation.

Before the procedure, haemoglobin percentage and coagulation profile were checked. Circumcision was performed using local anaesthesia. After preparing the area and draping the patient, the prepuce was first fully retracted to expose the coronal sulcus and to remove the retained smegma.Two small artery forceps were used to grasp and pull the prepuce forward over the glans with mild traction. Liquid paraffin was applied to the prepuce and the blades of a small bone cutter which was placed across the prepuce in an oblique direction distal to the glans and parallel to the coronal sulcus. After waiting for a couple of minutes ,the prepuce distal to the clamp was divided with the knife. Bone cutter was released and the inner layer of prepuce was trimmed accordingly if required. Haemostasis was secured with 4/0 plain catgut, applying 4 in 1 frenal stitch for frenular vessels and three more stitches one on each side and one on the dorsum. (Diathermy was not used in our study). Postoperatively wound was dressed with thin layer of vaseline gauze and dry dressing. Patients were advised to start sitz baths with luke warm water and a few drops of Dettol solution in it from next morning, two to three times daily for one week and let the dressing be off at its own. Syrup calpol (paracetamol) was advised as an analgesic in accordance with the age of the child. Patients were followed up in surgical OPD after seven days for assessment and earlier in case of any complication.

RESULTS

During the study period of two years, 250 cases of circumcision by bone cutter fulfilling the inclusion criteria were included and analyzed. Out of the 250 cases, 40 (16%) were neonates, mean age of neonates who underwent circumcision was 2.2 weeks. Whereas the remaining 210 (84%) were infants, mean age of infants was 6.4 months.

Out of the total 250 cases, the successful rate of circumcision without any complication was recorded in 229 (91.6%) cases. The remaining 21 (8.4%) cases developed minor complications. Infection was recorded in 7 children (2.8%). Some degree of bleeding was observed in 10 (4%) cases which require change of dressing in 8 cases and haemostasis by application of stitches in 2 cases. Redo surgery was done in 4(1.6%) cases for unsatisfactory cosmetic reasons. None of the patients in our study sustained trauma to glans.

DISCUSSION

Practice of circumcision was performed since 3000 BC by the Egyptians for hygienic and religious reasons. Moreover, male circumcision is a religious commandment in Judaism and Islam, and it is customary in some oriental orthodox and other christian churches of Africa. Nowadays, it is performed as a routine procedure by the Jews and the Muslims for religious reasons[9].

Recently, there have been efforts in a number of countries to forbid the circumcision of infants and children. This position, which is based on alleged violation of autonomy and on serious harm to the infant or child, is not supported by the medical literature. Controlled studies have accumulated results showing the major health benefits of circumcision of infants, there is a decrease in urinary tract infections, a virtual elimination of cancer of the penis, a reduction in HIV and HPV infections, as well as other sexually transmitted diseases, and perhaps, reductions in prostatic cancer and in uterine cervical cancer. The complications of the procedure are minimal, especially when performed in infancy[10]. Recent studies have not confirmed the alleged reduction in sexual pleasure as a result of circumcision. Therefore, there is no justification, whatsoever, for attempts to forbid circumcision of infants. On the contrary, there seem to be good reasons to encourage such practices.

In Pakistan, 90-95% of circumcisions are performed by traditional circumcisers, village barbers, paramedical theatre staff and

technicians, and only 5-10% have access to a proper medical facility where a doctor performs the circumcision under strict aseptic technique[1-8].

Penile trauma complicating circumcision has been reported, with varying degrees ranging from skin or meatal injury, partial glanular amputation to total penile amputation[4,5,7]. The most common complications of circumcision are ha-emorrhage and infection[1,3,4]. In the study reported from National Institute of Child Health (NICH), Karachi, about 3096 children were circumcised within a period of 5 years. Complications occurred in 49 cases (1.6%). In the same study, 281 cases with complications were seen as emergencies. Out of these 330 cases with complications, primary haemorrhage was the commonest. Primary haemorrhage and infection remained the commonest complications encountered during and after circumcision[1]. In our study also haemorrhage and infection are the commonest complications.

As far as partial and complete glans amputation is concerned about five cases were seen in SIUT in the last 10 years and 11 cases were reported in study conducted in NICH[1]. All the children were circumcised with a bone cutter, carried out by junior house staff, a family physician in his office or by traditional circumcisers[1].

None of our patients sustained injury to glans as the procedure was performed by qualified surgeons. In a study conducted by Javed et al comparing bone cutter and open method of circumcision concluded that there is no significant difference[3,11].

The potential for complications during circumcision is real and ranges from the insignificant to the tragic. The fairly high rate reflects the fact that the procedure is often performed by an inexperienced individual without attention to basic surgical principles[3]. Bone cutter method, though not standard, is an established and time tested method of circumcision used by most of the traditional circumcisers[6]. By training these practitioners and improving their sterilization/sanitation of instruments it can also become safe.

CONCLUSION

Circumcision is regarded as a minor procedure, the rate of complications in our region is high largely because it is performed by traditional circumcisers. Ideally, the operation should be performed by qualified surgeons in hospitals using standard techniques like plastibell or open method, but in a developing country like Pakistan the access to hospitals and trained surgeons is limited, therefore, proper training of health technicians would help to reduce the preventable complications.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

AUTHORS CONTRIBUTION

Zaki Hussain, compiled the article, Riaz Anwar Bashir, interpretation of data.

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