The Use of Thermal Cautery for Male Circumcision

Sameh Abdel Hay

Professor of Pediatric Surgery
Chairman, Department of Surgery, Division of Pediatric Surgery
Faculty of Medicine, Ain Shams University
Cairo, Egypt
samehhay@hotmail.com

Introduction

Male circumcision is usually done by many techniques; at different age groups; with or without anesthesia; by medical and non medical personnel.

Each technique has its advantages and disadvantages.

If circumcision is to be performed in the outpatient clinic under local anesthesia, the technique used should be safe and fast.

The use of thermal cautery is to cut the excess skin over a bone, cutting forceps was the technique used in two thousands, primary and redoes cases over the last 20 years.

An experimental work was done to assess the propagation of the thermal effect when cutting the excess skin of the prepuce over a bone cutting forceps by thermal cautery.

Based on this study, a 15 watts thermal cautery was used for cutting the excess previous over the bone cutting forceps during the male
circumcision, in 2000 cases in the neonatal age group or during the first 3 months under local anesthesia.

**Technique**

Step 1. Local infiltration of 1% Bupivicaine at the root of the penis.

Step 2. Retraction of the prepuce and cleaning of the smegma.
Step 3. Holding the skin by 2 hemostat. Application of the bone cutting forceps at the level of skin to be removed during circumcision.

Step 4. Cutting foreskin using the heated thermal cautery.
Step 5. Retraction of the skin after cutting to expose the glans and to check for hemostasis. Approximation of the skin edges with 5/0 vicryl if needed.

This technique was used in 2000 cases for primary circumcision under local anesthesia. The age ranged from 1 to 3 months (mean 35 days). The operative time ranged from 2 to 5 minutes (mean 3 minutes). No post-circumcision bleeding was noted in all patients and the cosmetic results were acceptable.

The histopathological examination of the skin below the bone cutting forceps showed that the extent of heat provocation is only 0.1 mm with normal skin afterwards (Fig. 1).
Fig. 1. The skin left below the bone cutting represents the region for examination to assess the histological of the extent of heat propagation and its effect on the different layers of the prepuce. It showed that the propagation is only for 0.1 mm with normal skin afterwards with the coagulation of the skin edge including all the contained vessels extent of thermal effect (arrow).