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# THERMOCAUTERY CIRCUMCISION: ESCAPING BLEED TO BURN INJURY

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## Introduction

Circumcision in pediatrics is a common procedure done for religious, cultural or medical purposes. It lowers the risk of urinary tract infections, penile cancer, and sexually transmitted diseases. The conventional and thermocautery method both lead to ranges of complication namely infections, bleedings, hemorrhages, variable recovery time and even death[1]. The thermocautery circumcision method has additional complication such as burn injury and tissue necrosis.

## Case Description

We report two cases of penile thermal burn injuries (tissue edema and necrosis) following thermocautery circumcision performed by private practitioners.

The first case involved an 8-year-old boy who was previously well, came in to paediatric emergency with a thermal injury day 5 post-circumcision. He presented with pain, swollen and bluish discolouration of inner prepuce. Clinically he had mild hematoma with necrotic patch seen.

The second case involved a 10-year-old child with no known medical illness, presented to us with blackish discolouration over proximal part of glans day 12 post-circumcision. Clinically child had circumferential necrotic patch with erythematous inner prepuce and was tender.

For both patients, removal of necrotic patch, daily dressing was done in ward and was covered with antibiotic. Subsequent follow-ups showed both have well-healed scar.

## Discussion

The advantages of thermocautery include less bleeding and shorter duration. However, the recovery time and duration of tissue edema are longer[2]. Thermocautery technique employs thermal energy for hemostasis and the sealing of blood vessels. The electric current has a risk to penetrate deeply, causing vascular damage and penile gangrene. The most challenging complication is edema whereby the heat-induced trauma increases local hypervascular permeability. The variety of edema severity could possibly contributed by lack of thermocautery temperature control. Emergency healthcare providers should be aware of this advance in circumcision method and its mechanisms so we will be able to look for its possible complications.

## Conclusion

Post-circumcision burn injury associated with this newly emerging method could have detrimental complications if not treated early. Emergency healthcare providers should recognize those complications and treat them in line with the concept of thermal burn injury. This helps to prevent unwanted complications that may affect child's reproductive health and future well-being

***Keyword**: circumcision, thermocautery, burn injury*

References

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