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Case Series: Iatrogenic Penile Amputation Due to Circumcision

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Abstract*--*Penile amputation is the most common complications of guillotine circumcision. There are three cases of iatrogenic penile amputation due to circumcision in Saiful Anwar General Hospital Malang in last 5 years. This series contains three cases of iatrogenic penile amputation due to circumcision in Saiful Anwar General Hospital Malang within 2013-2018 and all of them taken from hospital medical record. One of them already done replantation of penile but unsuccessful due to the preserved of the cutout and the ischemic time of the wound. All of them get the injury due to Guillotine technique that perform by unexperienced person. In cases of microphallus, buried penis, hypospadias, epispadias, phimosis and penoscrotal webbing the circumcision should be performed by a surgeon. Guillotine techniques are not safe for patients under 10 years old, because increase the risk of penile injury.

Key words*--*Circumcision, Guillotine, Iatrogenic penile amputation

I. INTRODUCTION

Penile amputation is the most common complication of Guillotine circumcision[1]. Incidents of penile amputation due to circumcision varies in different country. The incidence of penile amputation was highest among males circumcised at 10 years or older[2]. In Canada reported that 6 cases referred over a 5-year period, penile amputation during circumcision. There one case of partial amputation of glans penis in Israel at 2005, which the circumcision was performed by a ritual circumciser[3]. Although repair techniques have been well described in literature, failure of replantation and its causes are poorly understood and reported. A systematic review of 80 cases from 1996 to 2007 reported only 37.5% of cases undergoing a successful replantation[4]. This is a case series consisting of 3 total case and we collected in Saiful Anwar General Hospital Malang in last 5 years.

Patient

Case 1

An 8 years old boy patient was come to emergency room with penile amputation post circumcision with Guillotine technique by an elderly in their village 8 hours before admission. The glans penis is not specially preserved when brought to Malang, only wrapped in sterile gauze in the plastic bag. Patients said already done twice spontaneous urinating after circumcision, and there some blood mixed in urine. The patient was taken immediately to the operating room and was operated on under general anesthesia, the urologist perform penile exploration and primary closure. The penile cutout seems not viable to do replantation, so for helping this patient urinating, the urologist inserted 14 Fr Foley catheter. Three days after surgery, the wound close perfectly and the patient withdraw from hospital.

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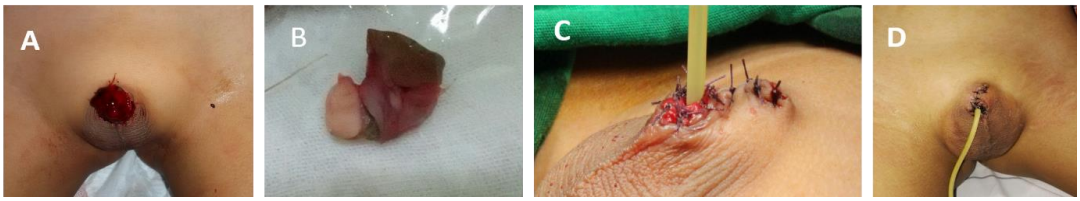

Figure 1. Clinical Presentation of the patient at Emergency Room. A) Anterior view of genitalia area, active bleeding at base of penile; B) Penile cutout consist of penile glans and shaft. C) Clinical presentation after surgery day 0. A 14Fr Foley catheter inserted for help patient urinating because the cutout already necrosis and not viable to do replantation, D) 3 days after surgery.

Case 2

An 8 years old boy patient was come to ER with penile amputation post circumcision with Guillotine technique by general practitioner, 6 hours before admission. The glans penis is preserved wrapped in a bag with Normal Saline 0.9% and stored in boxes containing dry ices. Patients have a history of tip of the penis bulging when urinated at 1 year old. The patient was taken immediately to the operating room and was operated on under general anesthesia and the urologist did penile exploration and try the replantation with microsurgery. During the surgery, operator findings residual cavernosum body of urethra less than 1/3 shaft of the penile, and spongiosum body intact. Then perform end to end anastomosis of dorsal penile artery with polypropylene, and inserted 14Fr Foley catheter for urinating. Three days after surgery, the glans and shaft tissue become necrotic. The necrotic areas getting wider until five days after surgery, and then the urologist perform debridement post necrosis. The catheter remaining for help the patient urinating. Patient withdraw from hospital at two days after debridement.

Figure 2 . Clinical presentation of the patient. A) Anterior view of the penile base; B) Lateral view of penile base, there some preputium skin left, within MUE hard to evaluated; C) The glans cutout, preserved in plastic bag soaked in normal saline 0,9%, and stored in box contain of dry ices.

Figure 3. Clinical presentation during and after surgery. A) During Surgery, B) Right after surgery C) Three days after surgery the glans and shaft tissue become necrotic D) Five days after surgery. Patient withdraw from hospital at day five after surgery.

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Case 3

A 12 years old boy came at emergency room with penile amputation post circumcision with Guillotine technique by an elderly, 8 hours before admission. History of bulging glans when urinating 10 years ago until now. The patient was taken immediately to the operating room and was operated on under general anesthesia, then the urologist perform penile exploration at that day and findings clot on the stump surface, some active bleeding and done the evacuation clot, penile remaining 1 cm from the base of the penile. Then proceed to repair penile stump and put 10Fr catheter.

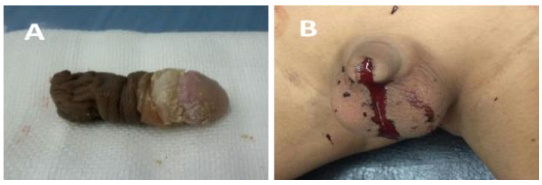

Figure 4. Clinical presentation patient at emergency room. A) the cutout penile, glans look pale and covered with smegma. MUE at normal position. B) Some preputium tissue left and swelling, active bleeding at penile base.

Figure 5. During the operation, A) patient urinated spontaneously. B) The MUE hard to evaluation, the remaining anterior urethral plate, the penile remain 1 cm from the base. From operation there are a lot of clots on the stump surface, some active bleeding. Then the urologist performs evacuation clot, also proceed to repair penile stump and put 10 Fr Foley catheter. C) Result of repair penile stump

II. DISCUSSION

Circumcision is a surgical removal of the skin covering the tip of the penile. It is the most performed surgical intervention all over the world, done mainly for religious and then for medical reasons[1]. It's known that circumcision prevents urinary tract infection in infants, and sexually transmitted diseases, balanithis-balonoposthitis, and cervical and penile cancer for adults, in spite of controversies[5]. However, recent studies have shown that circumcision does not significantly alter the glans sensation, to affect sexual pleasure[6]. Operators must perform the procedure in a proper way, to prevent the serious complications seen in circumcision carried out by inexperienced hands. Worldwide, religious circumcision is performed by trained, non-medical, 'circumcisers[7]. Before proceeding with resection of the prepuce using any one of the following techniques, the prepuce should be completely freed from all adhesions to the glans, including the corona. Ideally, resection of the prepuce/circumcision is started only after the entire corona can be seen with the prepuce retracted[8]. In cases of microphallus, buried penis, hypospadias, epispadias, phimosis and penoscrotal webbing the circumcision should be performed by a surgeon[9]. The ''guillotine technique'' is a simple, quick and relatively bloodless operation with

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good appearance. The risk of clamping the preputium with glans is the main handicap of this procedure and it might result in glans laceration, amputation, phrenular short cut or even urethral fistula. This is possible, especially in younger and fatty children because of the tinny glans.

From these cases, 2 cases within phimosis condition, which it should done by surgeon and all cases in this series use the guillotine circumcision technique. Which has higher risk of glans laceration, amputation, specially in younger children and tinny glans. The success of replantation following penis amputation reported at 2013 in Turkey. The following penis amputation is associated with the level of the incision, the incision type (crush or sharp incision), and the ischemia time. In cases of a simple one-level proximal penis amputation, replantation is usually successful and should be attempted if the amputated piece is preserved properly and the timing of the repair is appropriate. At Case 1 and Case 3, the amputated tissue not preserved correctly, it best preserved in moist gauze, chilled but not in direct contact with ice, which might freeze the tissue. Intraoperative debridement allows neovascularization, and immobilization with a bulky dressing is important to allow imbibition and inosculation.

III. CONCLUSION

Circumcision is a surgical removal of the skin covering the tip of the penile. In cases of microphallus, buried penis, hypospadias, epispadias, and penoscrotal webbing the circumcision should be performed by a surgeon. Guillotine technique has risk glans laceration, amputation, especially in younger and fatty children because of the tinny glans. The following penis amputation is associated with the level of the incision, the incision type (crush or sharp incision), and the ischemia time. In cases of a simple one-level proximal penis amputation, replantation is usually successful and should be attempted if the amputated piece is preserved properly and the timing of the repair is appropriate. The amputated tissue is best transferred in moist gauze and chilled but not in direct contact with ice. Intraoperative debridement allows neovascularization, and immobilization with a bulky dressing is important to allow imbibition and inosculation.

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