



Case Report

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Traditional nanny circumcision and dressing with sumac, onion and oil: A case report and review of the literature

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ABSTRACT

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Roughly every one out of three men is circumcised today. Complications are very common given the fact that circumcision is the most widely conducted surgical procedure by traditional circumcisers and doctors. The aim of this article is to present the case of a three-day old male infant who was brought to the emergency department with intractable bleeding as a complication of circumcision. This case is interesting because of the traditional circumcision technique, the circumciser being women, and the dressing compound being unusual. Three days old male baby was circumcised by a traditional technique called the nanny circumcision and wound was dressed with a compound consisting of sumac, onion and grease. The patient was surgically treated and had no complications in follow-up. Circumcision may cause serious complications if not done properly by people who are not health care professionals. Hereby, we present the case of a traditional circumcision and review the literature. Our goal as health care providers should be to educate people about possible complications of circumcision, so that they would demand surgeons who are educated for circumcision of their children.

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1. Introduction

Circumcision is the world's oldest and most commonly performed surgical procedure with a history of 5000 years in the world (Yegane et al., 2006; Perera et al., 2010). Roughly every one out of three men is circumcised today (Weiss et al., 2010). The procedure can be done for therapeutic or prophylactic, religious, cultural, social reasons (Perera et al., 2010).

Traditionally, almost all boys in Turkey are circumcised. With higher public education levels achieved, circumcisions are not performed in tents

that are pitched in between neighborhoods anymore. Instead properly trained medical personnel perform circumcisions at hospitals. In Turkey vast majority of the circumcisers are men. Complications are very common given the fact that circumcision is the most widely conducted surgical procedure by traditional circumcisers and doctors. These complications may arise from extraordinary incision techniques or methods used for wound healing or bleeding controls that differ from routine techniques (surgical tools, dressing, aftercare materials etc.).

The purpose of this article is to present the case of an infant brought to the emergency room with circumcision bleeding and to review literature. Case is interesting in terms of the incision technique and the materials used for bleeding control and wound healing.

2. Case

Infant was brought to the emergency department with intractable bleeding six hours after circumcision. In the patient's history the parents indicated that the bleeding did not stop after nanny circumcision. The wound was covered repeatedly with the dressing material but the application was unsuccessful to stop the bleeding and that is the reason why they have decided to come to the hospital.

On physical examination the inguinoscrotal region was covered with a material, a cloth was used to wrap it around the penis and there was active bleeding (Fig. 1). In his laboratory tests complete blood count and PT, INR values were within normal limits. After taking him to the operating room, 1mg of vitamin K was administered intramuscularly. Inguinal region was cleaned from the wound dressing. Under general anesthesia penis was degloved. Bleeding point was determined and cauterized. Inner and outer foreskin was brought together with simple interrupted sutures. Dressing was applied to the wound and 50 mg/kg/day IV ceftriaxone treatment was initiated. The patient was discharged on the next day with a prescription of antibiotics and no complications were detected in early and late follow-ups.



Fig. 1. The inguinoscrotal region was covered with herbs and oil, a cloth was used to wrap it around the penis and there was active bleeding.

In the detailed history taken from the family, the parents indicated that an elderly lady conducted “nanny circumcision” on the baby. Dressing of the wound was prepared using onion (*Allium cepa*), sumac (*Rhus coriaria*) and grease. Most children are circumcised with the same traditional way in that particular region. Written informed consents was obtained from the parents.

3. Discussion

This case of a 3-days-old infant who was brought to the emergency room with intractable bleeding after circumcision is presented because of the circumcision technique and the dressing material used to stop bleeding. The infant was circumcised with a local technique called “nanny circumcision” by a woman using a razor and dressing material was a mixture of onion, sumac and grease.

In Turkey, circumcisers do most of the circumcisions. Most circumcisions are done not for a medical need but either for traditional or religious reasons (Verit et al., 2002). Studies show that 85% of the circumcisions are made by circumcisers, 10% of them are done by health care personnel other than doctors and 5% are done by surgeons (Ozdemir, 1997). Circumcisers, most of whom are male, are trained by using a master-apprentice approach and this training is neither official nor medical. In this region, circumcisions are most common in the first three days after birth mainly because of tradition and also according to a belief that bleeding has a protective power over jaundice and it's beneficial for infant's health at later stages in life. Although almost most all circumcisers are male in Turkey; in this particular region circumcisers are generally female and the eldest women undertake the procedure and experience is passed along generations. The oldest lady of the family or the neighborhood usually performs the circumcision and she also teaches the procedure to younger women in the community. Historically it is known that Serefeddin Sabuncuoglu (fifteenth century), and his female students performed penile surgery (Sabuncuoglu, 1465).

Although perception about circumcision is changing especially among younger generation, it is still not conceived as a serious surgical procedure. It is performed outside operating rooms, environments that are not sterile like open spaces or at home (Ozdemir, 1997; Verit et al., 2002; Atikeler et al., 2005; Chaim et al., 2005).

While the most common early stage complications of circumcisions are; bleeding, infection, fistula, meatal stenosis, over trimming of skin and loss of penis; psychosocial problems are also common in the longer term like castration anxiety, dissatisfaction, and increased pain response. Complication rates range in between 0.2-2% in literature. Rates can go up to 8-17% in circumcisions performed under non-medical conditions. The actual complication rates might be even higher when minor appearance disturbances and related psychological problems are also taken into account (Ozdemir, 1997; Verit et al., 2002; Atikeler et al., 2005; Chaim et al., 2005; Perera et al., 2010; Weiss et al., 2010). In the region circumcision is conducted in a non-sterile environment with help of a razor.

Many plants are used for dressing wounds to facilitate healing or stop bleeding in Turkey and around the world. In Turkey *Abies cilicica*, *Achillea biebersteinnii*, *Achillea millefolium*, *Achillea nobilis*, *Ajuga sp.*, *Allium sativum*, *Althaea officinalis*, *Amygdalus communis*, *Anchusa azurea*, *Echinophora sp.*, *Euphorbia anacampseros*, *Echium italicum*, *Hypericum perforatum*, *Helichrysum plicatum*, *Salvia aethiopsis*, *Abies bom mülleriana*, *Smilax sp.*, *Olea europea*, *Papaver somniferum*, *Pinus nigra*, *Nicotiana glauca*, *Sambucus ebulus*, *Vitis vinifera* are used for wound healing (Sezik et al., 1991; Sezik et al., 1992; Yesilada et al., 1993; Tabata et al., 1994; Fujita et al., 1995; Honda et al., 1996; Tumen et al., 2006). *Langermannia sp.*, *P. Persica*, *Urticadioica*, *Centaurea lycopifolia* and *Juglans regia* are used both for wound healing and to stop bleeding. *Pinus nigra* is first applied to stop bleeding and then an ointment prepared by mixing tail fat, honey wax, sugar and tar is applied for rapid healing. The majority of plants in Turkey are employed for treating skin problems such as cuts, wounds, abscesses, scabies, etc. and this makes 14.4-25% of overall recorded usages (Sezik et al., 1991; Honda et al., 1996).

The Eastern region of the Mediterranean has been distinguished throughout the generations with a rich inventory of natural medicinal herbs used by local herbalists (Saad et al., 2006). In Anatolia there are healers who also try to treat people with plant, animal and mineral mixtures other than circumcisers. Historically Heliiodorus and Antyllus were the first to describe the partial resection of glans penis due to hypospadias. Bandaging, cauterization and the local application of vinegar were used to stop the hemorrhage (Buyukunal, 2004).

Onion and garlic have been used as medicine and food traditionally in Anatolia since ancient times (Kosar et al., 2006). Onion is a staple food with a high content of flavonoids (Javadzadeh et al., 2009). The flavonoid compound exerts several biological properties including antioxidant activity, tumor suppression, and reduction of scar formation. The mechanism of action of *Allium cepa* extract is thought to work by inhibiting fibroblast function in addition to reducing the formation of ground substance necessary for the formation of scar matrix. *Allium cepa* is also known to possess antibacterial properties (Jackson and Shelton, 1999). As well as being used for wound healing; onion is also used in Turkey's many

regions for treatment of bee sting and hemorrhoids, for abscess maturation, as a painkiller in rheumatism, sprains and headache (Yesilada et al., 1995; Tumen et al., 2006; Kosar et al., 2006).

Rhus coriaria comes from the berries of a wild bush that grows in all Mediterranean areas. In the medical literature it is reported that methanolic extracts of *Rhus coriaria* L. fruits may be a source of natural antioxidants (Zargham and Zargham, 2008). *Rhus coriaria* is used in wound healing, to treat animal bites, for edema in legs, dysentery, diarrhea, to promote maturation of abscess, to pass kidney stone, for treatment of gastric ulcer, stomachache, common cold, burns and elevated cholesterol (Sezik et al., 1991; Tabata et al., 1994; Fujita et al., 1995; Yesilada et al., 1995; Honda et al., 1996; Lev, 2006).

Reviewing the literature, we have seen that a lot of natural products are used for traditional folk medicine. There are so many reasons for these types of treatments to be popular in certain areas: In some countries some villages especially the ones on the mountains cannot be reached for months during winter because of snow covering the roads, transportation is hard or socioeconomic and sociocultural levels of the people are low. In this case nanny circumcision and unusual wound dressing is still common in the region probably also because Eastern Anatolia is still rich in folk medicine as a result of the geographical remoteness of this region from medical centers and facilities, and the difficulty of transportation in long and cold winters (Tabata et al., 1994).

Although abolition of nanny circumcision in this region is not likely to happen in near future, intervention by education of general public and circumcisers is vital to prevent short and long term complications of circumcisions that are performed in non-sterile environments and to also ensure that circumcision is only performed by healthcare personnel. Attention has to be brought to these traditional and regional practices and their complications that is a serious public health problem. Education to general public may arise awareness about the serious complications and may help to stop unhealthy practices.

Serious complications of circumcision, even mortality after circumcision may be seen especially when medically not trained people do it in a non-healthcare setting. Our goal should be to raise awareness among people so that they demand the circumcisions to be done by properly trained surgeons.

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