Circumcision experience in severe hemophilia patients with inhibitors

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Introduction

Circumcision is one of the oldest and most frequently performed surgical procedures in the world, with an estimated 30% of men worldwide circumcised. The procedure may be performed to treat an underlying pathological process or for prophylactic, religious, cultural, or social reasons [1].

As in other Islamic countries, circumcision is practiced in Turkey for religious and traditional reasons. For these reasons, hemophiliac patients and their families in our country feel significant social pressure to undergo circumcision in spite of many complications [1-3].

We reported the experience of our hemophilia center and discussed the management for the population of these patients in regards to circumcision.

Patients and Method

In this study, we retrospectively reviewed 7 patients with hemophilia and inhibitors from the medical records in Çukurova University Pediatric Hemophilia Center. In 5 hemophilia patients with inhibitors, recombinant factor VIIa (rFVIIa) was given 90 μg/kg before and after circumcision every 2 hour. In 2 hemophilia patients with inhibitors, activated prothombin complex concentrates (aPCC) was given a loading dose of 100 U/kg and followed by 200 U/kg/day in two divided doses every 12 hour.

Circumcision was done by dorsal split technique. It was carried out under general anesthesia except for one patient who was given local anesthesia. Fibrin glue was used (Tisseel Kit®; Immuno AG, Vienna Austria or Beriplast-P®;Behring Marburg, Germany) for all circumcision.

Results

All patients were severe hemophilia A. The characteristics of the patients are presented in table.

Five of seven hemophilia patients had 2 moderate and 3 mild bleeding complications. After being discharged from the hospital, oozing occurred in two patients after 7 and 11 days of circumcision. These patients were admitted to hospital again and received additional by-passing agents. Two of 7 patients with inhibitors were performed concurrent surgical operation including inguinal hernia repair and cataract extraction. Inguinal hematoma occurred in patient who had inguinal hernia repair. Multiple traumas due to traffic accident had in one patient.

Discussion

The circumcision of the male person is the most commonly performed surgical procedure in the world [1]. It is not specific to Islamic world; there are also common in some Christian Churches in Africa, including some Orthodox Churches which practice it. Furthermore, it is commonly practiced in Jewish religion [2,3]. Kavaklı et al evaluated the psychological dimension of circumcision and the opinions of parents and children in our country. They revealed that circumcision was important social problem of hemophiliac patients that needs to be solved [3,4]. Therefore, hemophiliac patients are still being circumcised by all medical and comprehensive hemophilia centers in our country.

The complications include pain, bleeding, the inadequate removal of foreskin, meatal stenosis, meatal ulcer, fistulas and complications of anesthesia [5].

Martinowitz et al reported from Israel that fibrin glue is a useful treatment modality for circumcision in patient with bleeding diathesis, and it is safer and cheaper than the infusion of factor concentrate [6]. We applied fibrin glue to all patients in our center.

With the introduction of by-passing agents, surgical interventions can be performed safely in hemophilia patients with inhibitors. Any severe bleeding according to our bleeding classification was not seen in our hemophilia patients with inhibitors. After being discharged, late bleeding was seen in 2 patients.

Conclusion

Bleeding diatheses are not absolutely contraindications for circumcision, but circumcision of children with bleeding disorders should be performed cautiously by surgeons together with hematologists under appropriate conditions in comprehensive hemophilia centers[7].

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Table.Characteristics of the patients with inhibitors underwent circumcision in our center

Age at DH(day) Circumcision	Treatment	Inhibitor Status (BU)	Weight (kg)	Complications of Circumcision and time	Concurrent Operation/ Situation
13 years	rFVIIa	23.6	33	2th day oozing and hematoma	None 20
1 year	aPCC	150	10	Inguinal hematoma	Inguinal hernia repair 9
13 years	rFVIIa	25.6	35	1 th day, oozing	Cataract 4
17 years	aPCC	6.4	60	None	Traffic accident 10
16 years	rFVIIa	30.7	52	7th day oozing,	None 3
4 years	rFVIIa	2.5	15	11th day oozing	None 4
3 years	rFVIIa	3.6	13	None	Laceration in tongue 3

DH :Duration of hospitalization

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