ABSTRACT

Hemophilia is a disease of blood coagulation inherited as a sex linked recessive. The disorder is attributed to decreased blood levels of procoagulant factor VIII. However, mild forms of the disease with almost inapparent clotting defects have been reported. Patients with hemophilia often give a history of unusual bleeding associated with minor trauma. The disease may however remain undetected without such history. This article describes a case of a 5 years old with no positive history of any bleeding disorder, and the hemophilia remained undetected until the extraction of teeth.

Keywords: Procoagulant factor VIII, Congenital coagulopathies, Postoperative hemorrhage.


INTRODUCTION

Classic hemophilia is a hereditary disease of blood coagulation transmitted as a sex linked recessive characteristic. It affects nearly one in 10,000 persons. The disorder is attributed to decreased blood levels of procoagulant factor VIII. The deficiency of factor VIII levels is characterized by prolonged clotting time (CT) and prolonged activated partial thromboplastin time (APTT), with the platelet count, platelet function test and bleeding time being normal. However, reports of mild forms of the disease with almost inapparent clotting defects have reported.

The severity of the disease varies from patient to patient and the clinical presentation of the disease depends on the circulating levels of factor VIII, and is characterized as mild, moderate and severe forms. Patients with hemophilia a often give a history of bruising, joint swelling and unusual bleeding associated with minor trauma. The disease however may remain undetected without such history. This article describes a case of a 5 years old with no positive history of any bleeding disorder, and the hemophilia remained undetected until the extraction of teeth.

CASE REPORT

A 5-year-old male child reported to the clinic with a history of pain in relation to upper anterior teeth. The medical history was inconclusive except for a history of viral fever 4 months back for which he had investigations done including a complete hemogram (bleeding time—2 minutes 45 seconds; clotting time—6 minutes 30 seconds) and was treated for the same. Dental history revealed pain and swelling in relation to upper anterior region 1 month back which subsided on taking medications. Clinical examination revealed dental caries in relation to upper and lower anterior teeth (Fig. 1). Radiographic examination revealed dental caries involving enamel, dentin, and pulp with root resorption in upper anterior teeth with less than one-third root present. After obtaining consent, the lower anterior was restored with light cured composite restoration during the first visit following which antibiotics, analgesics were prescribed for pain and swelling. The patient was recalled after 2 days and the upper anterior teeth were extracted under Local anesthesia (LA). Hemostasis was achieved using application of gauze and digital pressure. Checkup was done after 10 minutes and postoperative instructions were given and the patient was discharged, and asked to report back for a review 1 week later.

However, the patient reported back within 24 hours with a persistent bleeding from the socket. Clinical examination revealed bleeding from the extraction site. The extraction site was clinically evaluated and sutures were placed following which the bleeding was controlled (Fig. 2). A checkup was done 1 hour later and the oozing of blood still persisted at the sutured site (Fig. 3). The patient was referred for hematological investigations and the reports suggested normal bleeding time and clotting time. However, the APTT was increased (APTT–42 seconds). The child was referred to a hematologist for further management.

A complete blood count, liver function tests, Renal Function test, coagulation profile study, plasma fibrinogen tests, factor VIII and IX tests assays were assessed. The Factor VIII level was at 7.5% and he was diagnosed with Mild Classical hemophilia. He was treated with factor VIII...
concentrate 320 units for 3 days, one unit of A1 positive fresh frozen plasma, 1 unit of A1 positive packed red cells following which there was cessation of bleeding. Subsequently the child was given oral medication for a week (Tablet Tranexemic acid 250 mg TDS for 7 days). Genetic counseling was also done at the hematologist office.

DISCUSSION

The overall complications and risk of hemorrhage following extraction of molar teeth in adults is 0.2 to 1.4%. Very less literature is available regarding the same following extraction of primary teeth. The causes of postoperative hemorrhage can be local or systemic. The systemic causes may include medications that affect coagulation, coagulation disorders, liver diseases and hypertension. At times, the congenital coagulopathies may not be diagnosed early in life and many of these patients present to the dental office without prior knowledge of their condition. Further routine preoperative blood testing of patients without a relevant medical history of coagulation disorders is inappropriate. In diagnosis of hemophilia, a careful history provides more valuable information than laboratory tests, especially when evaluating children.

In the case presented here, the medical history presented was inconclusive and the blood investigations performed for the viral fever 4 months back appeared within normal limits. Hence, the extraction was carried out with parental consent. In most cases local control of bleeding following extraction can be achieved by use of fibrin stabilizing products such as epsilon aminocaproic acid and tranexamic acid. However, when the local measures fail, there is suspicion of systemic cause to the prolonged hemorrhage. The diagnostic dilemma in assessing the cause of bleeding in the present case was due to normal preoperative bleeding and cloting time which were observed in previous test results as well as the inconclusive medical history and hence the diagnosis of hemophilia was missed. Since the bleeding was not controlled in our case, even after suturing further investigations were carried out which showed normal bleeding and cloting time with an elevated APTT. Although, a thorough coagulation profile tests is not possible in each and every case, the surgeon must exercise constrain in dependence of the screening tests of coagulation and should be equipped to manage and refer such episodes of postoperative hemorrhagae.

REFERENCES


ABOUT THE AUTHORS

Nilaya Reddy
Associate Professor, Department of Pedodontics and Preventive Dentistry Ragas Dental College and Hospital, Chennai, Tamil Nadu, India

Sakthivel Rajendran (Corresponding Author)
Senior Lecturer, Department of Pedodontics and Preventive Dentistry Ragas Dental College and Hospital, Chennai, Tamil Nadu, India
Phone: 9884249289, e-mail: dr.r.sakthivel@gmail.com

Radhika Krishnan
Professor, Department of Anesthesiology, Ragas Dental College Chennai, Tamil Nadu, India