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Management of bleeding in dental extraction in hemophiliac patients: A rare case report

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Abstract: Haemophilia is a common hereditary bleeding disorder. The approximate 400,000 people are affected worldwide. The X-linked recessive chromosomal bleeding disorder is caused by a variety of mutations in the factor VIII (Haemophilia A) or factor IX (Hemophilia B) gene. The male affected, where female are carriers. A male patient age 26 years with dental opd registration number 27329/16, complaining of bleeding gum came to the dental opd. On medical history taking he has revealed that he was suffering from Haemophilia- B from many years. On examination of oral cavity lower left posterior gum was bleeding. The tooth was removed elsewhere as he reported and was bleeding was from last two days; the bleeding was very slow but steady. The symptomatic treatments were given and bleeding arrested.
Keywords: Haemophilia-B, dental extraction, local haemostatic agents, factor replacement therapy.

INTRODUCTION:

Haemophilia is a common hereditary bleeding disorder. The approximate 400,000 people are affected worldwide. The X-linked recessive chromosomal bleeding disorder is caused by a variety of mutations in the factor VIII (Haemophilia A) or factor IX (Hemophilia B) gene [1, 3]. The male affected where female are carriers. Haemophilia- A is the most common form of this disorder. Approximately 1:5000 males are affected. In comparison Haemophilia- B is less common; 1:30,000 males are affected. Haemophilia is summarized as follows: mild when plasma activity is between 6 and 40 % of normal; moderate if it ranges between 1-5 % and severe if it is <1 %. Patients with haemophilia are at high risk of intra- and postoperative bleeding when oral surgery has to be performed [5]. Therefore management of patients with hereditary bleeding disorders requires close cooperation between oral surgeons and a comprehensive haemophilia treatment center [2, 4, 14]. The use of clotting factor replacement therapy for all invasive surgical interventions is required. Successful treatment protocols are using systemic treatment, antifibrinolytic agents and local haemostatic measures [6, 7].

CASE REPORT:

A male patient age 26 years with dental opd registration number 27329/16, complaining of bleeding gum came to the dental opd of I.G.I.M.S., Patna, and Bihar. On medical history taking he has revealed that he was suffering from Haemophilia- B from many years. On examination of oral cavity lower left posterior gum was bleeding. The tooth was removed elsewhere as he reveled on history taking, and was bleeding from last two days; the bleeding was slow but steady. The patient was given pressure pack, bleeding was controlled temporary and advised tablet tranexamic acid 500mg (tds) for seven days. He was sent to General medicine department for further consultation. The facility for FFP/ factor IX concentrate for hemophilic patient was not available in the hospital so, he was advised for factor transfusion at Patna medical college and hospital, Patna, Bihar. Patient is followed up after five days, bleeding stopped completely and suture was removed. Patient was also given preventive advice before going any surgery and consult general physician if required.

DISCUSSION/MANAGEMENT:

Patients with haemophilia are at high risk of secondary bleeding following oral surgery. The role of hematologists and oral surgeons is necessary to prevent excessive hemorrhage. International guidelines strongly recommend the use of clotting factor replacement therapy for all invasive surgical interventions [6, 7, 8, 9]. The World Federation of Haemophilia (WFH) advises the use of factor concentrates to cryoprecipitate or fresh frozen plasma for the replacement therapy in patients with Haemophilia. The factors VIII and IX concentrates may be divided into two categories,

recombinant and plasma-derived factor. There are no statements from the WFH for a preference for recombinant over plasma-derived concentrates. The conventional replacement therapy is not effective in patients with antibodies to factor VIII and IX. Factor replacement therapy carries a risk of transmission of viruses or new pathogens and may lead to develop inhibitors. Therefore reducing the number of patients and times requiring factor replacement therapy is helpful. It is much less expensive than coagulation factor concentrates. The antifibrinolytic treatment with tranexamic acid and e-amino caproic acid (EACA) prevents postoperative bleeding by inhibiting the activation of plasminogen to plasmin and promoting the clot stability. It is usually given as an oral tablet three to four times or by intravenous infusion two to three times daily. Tranexamic acid should be prescribed for seven days following dental extractions in patients with intrinsic bleeding disorders. Local haemostatic measures used in dental extractions are sutures, collagen vlies, oxy-cellulose, gelatin, a fibrin glue and cyanoacrylate [11]. According to one study topical haemostatic agents in terms of their ability to mediate platelet aggregation, deposition and activation in a series of in vitro tests are presented as an overall activity ranking of the materials used: collagen>gelatin>oxidized regenerated cellulose.

To prevent reactionary (late bleeding) used absorbable sutures in order to avoid suture removal. The use of Nsaids as aspirin is avoided and Paracetamol for pain control should advised [13]. The current literature reports successful treatment protocols to prevent bleeding complications following oral surgery procedures. According to one study evaluated the efficacy of a protocol using a general management and combining fibrin glue with gelatin packing and compressive splints for the management of dental extractions in haemophiliacs. An outcome with six instances of postsurgical bleeding during 19 interventions was recorded [10]. According to one study analyzed 10 years of experience in managing patients with hereditary bleeding disorders in Italy. No specific protocol was used. There were only ten bleeding complications (1.9 %), were reported when patients are managed by local and systemic measures [12]. According to one study reported, dental extractions in patients with bleeding disorders, Collagen vlies, fibrin suture and primary suture were used in combination [9].

CONCLUSION:

The case of haemophilia –B is less common than haemophilia –A. Before going any type of oral surgery/general surgery, patient medical history must be taken. If the surgery is invite bale proper replacement of factors should be kept ready with consultation of hematologist.

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