

TOOTH EXTRACTION: UNEXPECTED UNCONTROLLED BLEEDING

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(1) SOFT TISSUE BLEEDING

- ✓ MECHANICAL PRESSURE
- ✓ SUTURING
- ✓ L.A AND VASOCONSTRICTOR

(2) BLEEDING FROM VESSELS

- ✓ CLAMPING
- ✓ LIGATIONS
- ✓ DIATHERMY
- ✓ ACRYLIC SPLINT

TREATMENT APPROACHES CONT'D

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- ✓ PRESSURE PACKING
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(I)INTRODUCTION

(A)DEFINITIONS

Tooth extraction; one of the most popular procedures in dental practice.

Control of haemorrhage after tooth extraction is an integral part of this procedure.

One may have to contend with prolonged bleeding in some cases due to many reasons; and all efforts should be made to control post extraction bleeding to avoid a life threatening emergency.


Extraction is the removal of a tooth from its bony socket either in part or in whole. It could be forceps extraction or surgical extraction

INTRDUCTION CONT'D

- Bleeding is the extravasations of blood from its vessel.
- Post extraction bleeding is a term used to connote persistent prolonged bleeding after extraction exceeding the normal bleeding time with no tendency for clot formation
- CLASSIFICATION
- Post extraction bleeding can be classified into three categories depending on the time of occurrence
 - Primary OR immediate(intra operative bleeding)
 - Reactionary (within 48hrs post op)
 - Secondary(7-14days post op)

INTRODUCTION CONT'D

- (C) AETIOLOGY
- LOCAL : e.g
- trauma, laceration,
- friable granulation tissue, clot dislodgement, infection, Infection
- Hemorrhagic lesions,
- **Strenuous activities,**
- application of heat,
- coughing

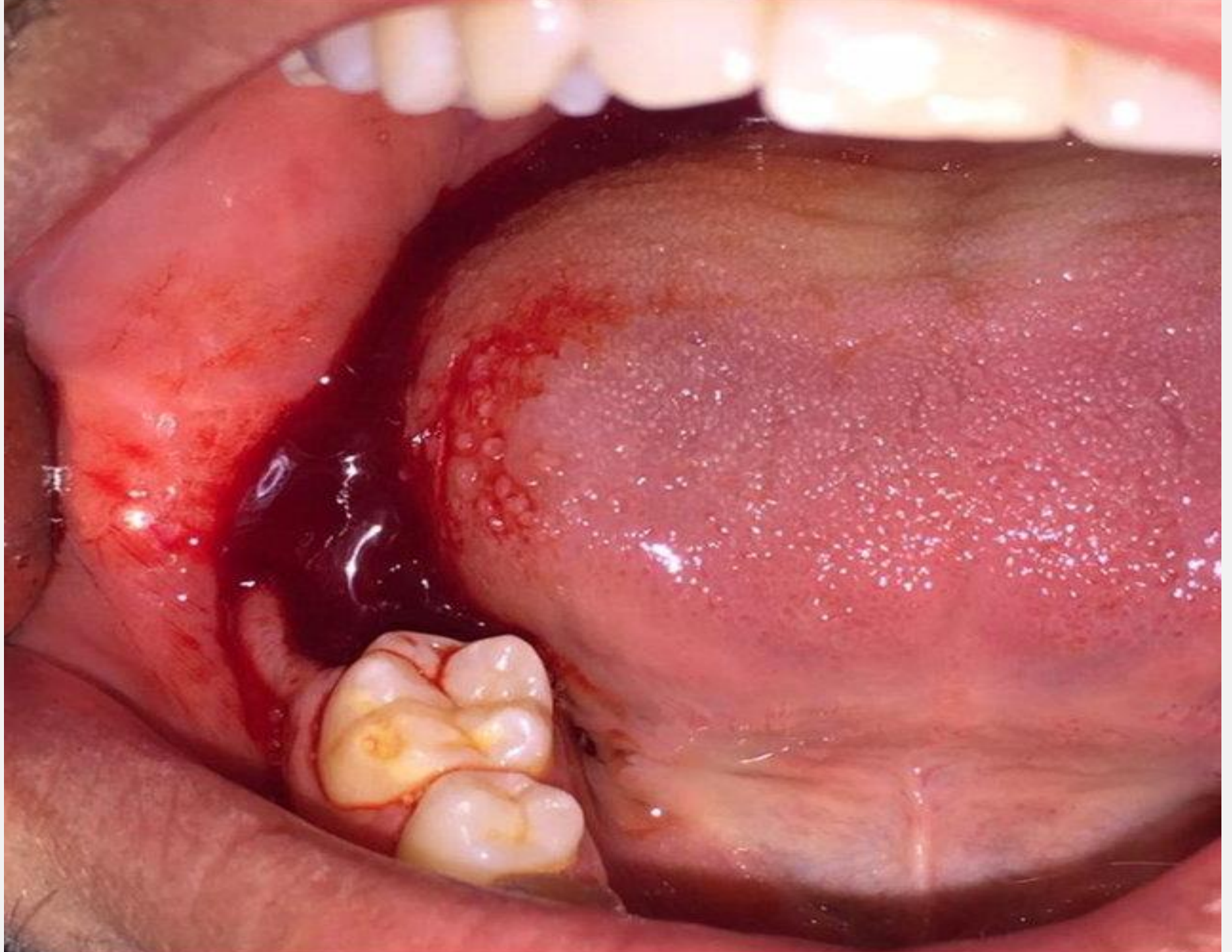
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- SYSTEMIC : can be inherited e.g haemophilia ,VWD dx, thrombocytopenia; or acquired e.g vitamin K deficiency, DIC, scurvy, liver dx
 - Coagulopathies, anticoagulant therapy, anti-platelet drugs,
 - Uraemia, Lupus Erythematosus,
 - Steroid therapy (prolonged),
 - Multiple Myeloma, Leukaemia,
 - Hypertension,
 - Thrombocytopenia

INTRODUCTION CONT'D

- (D) CLINICAL FEATURES
- Common and easy to diagnose
- Persistent bleeding within and around the extraction socket
- Patient is very anxious
- Patient is nauseated by the taste ,smell, and sight of blood, and by blood in the stomach which is irritant and may actually vomit
- Patient are seldom shocked or hypotensive

INTRDUCTION CONT'D

- (E) SITES OF POST EXTRACTION BLEEDING
 - After the extraction of a tooth, bleeding can be from one or more of the following
 - Gingival or surrounding soft tissue
 - Surrounding blood vessels and arterioles
 - Bony socket of the tooth
 - Control of bleeding from any of these sites demands a distinct approach



(2) MANAGEMENT OF POST EXTRACTION BLEEDING

- (A) PRINCIPLES OF MANAGEMENT
 - Support patient
 - Diagnose cause, nature and site of blood loss
 - Control the bleeding point
- (B) REQUIREMENTS FOR TREATMENT
 - Good lighting system
 - Good suction apparatus
 - Astute and smart assistance

(C) PRELIMINARY MEASURES

- Reassure the patient he won't bleed to death
- Remove accompanying entourage
- Get patient to an area with reasonable facilities
- If patient has to wait to be seen he should bite firmly on a clean handkerchief or gauze, rolled to fit the area the bleeding seems to be coming from for at least ten minutes
- In good light, with suction, clean the patient's face and mouth, remove any lump of clot, and identify the source of bleeding (soft tissue, vessels, bone)
- Careful handling of tissue to avoid unnecessary trauma
- Establish IV access to replace lost blood volume and do G & M when necessary.
- With good knowledge of anatomy of the surgery area, control the bleeding.

- Sterile gauze (pressure pack)
- Suction
- Suture kit
 - Needle holders
 - Tissue forceps
 - Suture material and needle
- Haemostatic gauze
- Bone wax
- Astringent solution, eg ferric sulphate
- 5% Tranexamic acid mouthwash
- Cautery
- Systemic monitoring equipment – blood pressure, heart rate and pulse oximeter

(D) TREATMENT APPROACH

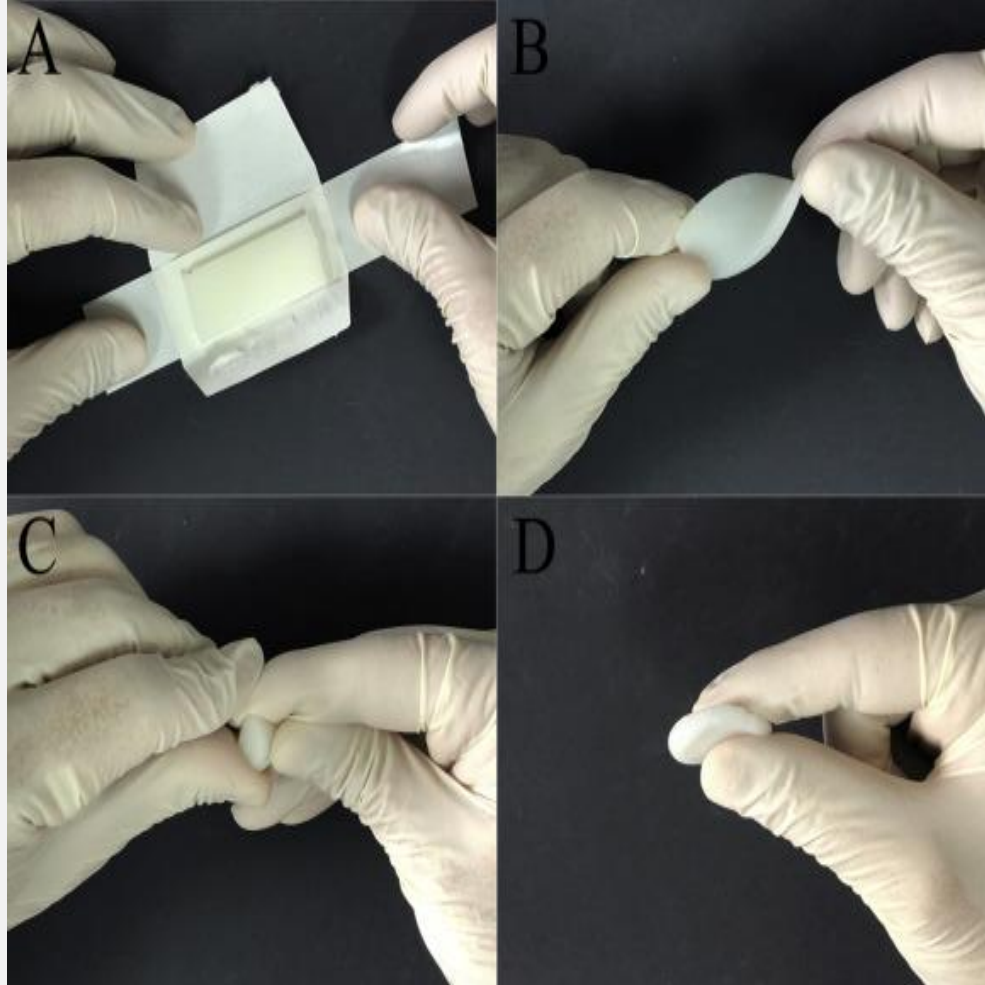
- (I) post extraction bleeding from soft tissue/gingival
- Mechanical pressure—squeeze the gingiva to the outer walls of the socket between finger and thumb. Bleeding stops if it is from gingival vessels. Then;
- Suture across the socket using horizontal Mattress (using a Reef knot or surgeon's knot)
- L.A with vasoconstrictor
- Pressure packing with gauze

(2) BLEEDING FROM VESSELS AND ARTERIOLES

- Any or combination of the following could apply in bleeding from vessels
 - Clamping of bleeding vessel
 - Ligatures
 - Coagulation with diathermy
 - Acrylic splint; immediate dentures
- (3) Bleeding from bone
 - If mechanical pressure with the thumb and index finger on the gingival does not stop bleeding, it is from bony socket
 - Bleeding from bone is controlled by any of the following ways:

BLEEDING FROM BONE CONT'D

- Packing the socket with gauze (soaked with adrenaline, or epsilon aminocaproic acid , Tranexamic acid) under biting pressure
- I.V tranexamic acid 500mg in 5ml given slowly
- Crushing or burnishing the bone.
- Application of haemostatic substances(gelatin foam, surgicel, fibrin foam, thrombin)
- Application and smearing of bone wax
- Application of Impression Compound



BLEEDING FROM BONE CONT'D

- At completion of procedures, observe px in the clinic for about 15-20 mins;
- while observing the patient, then reevaluate the history provided and medical status.

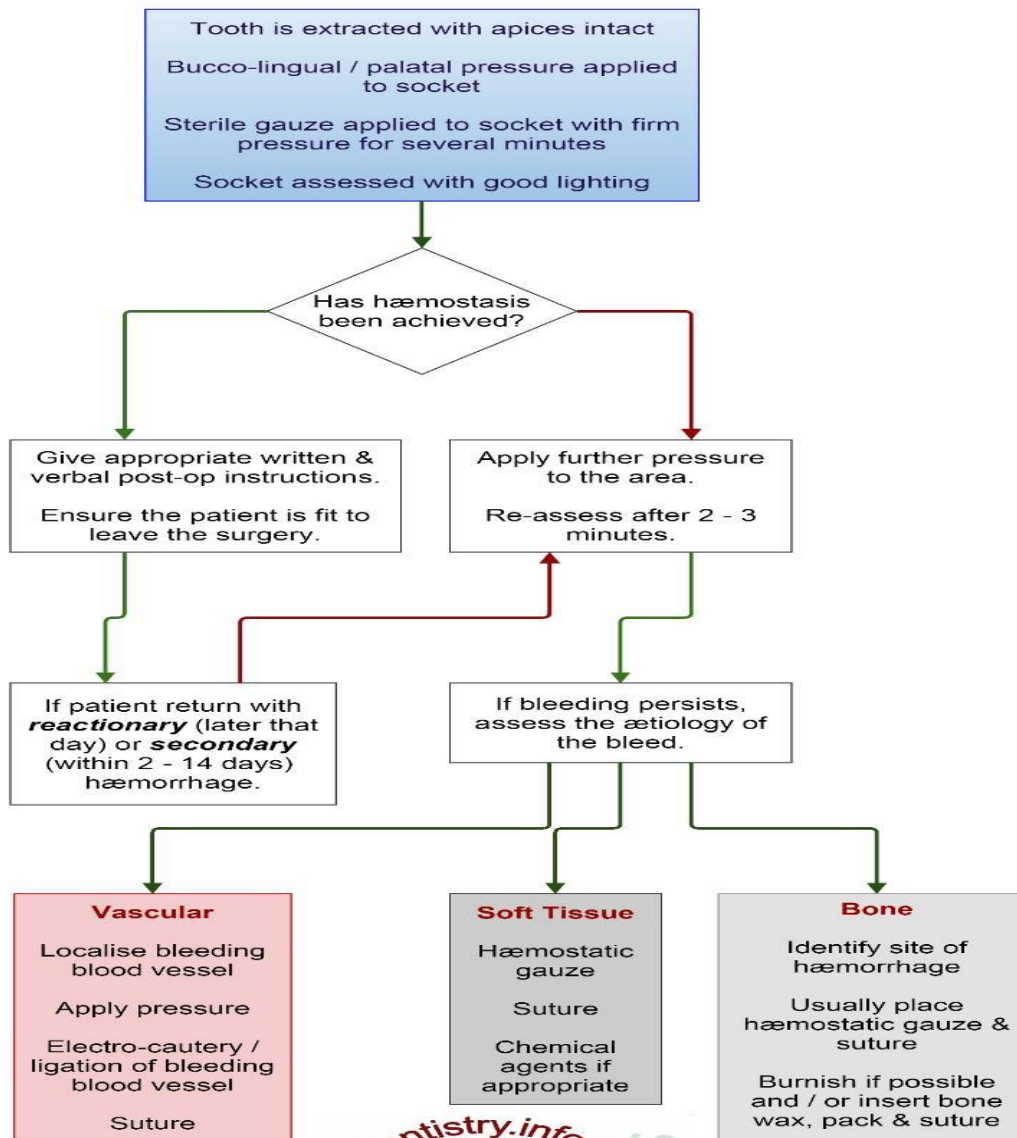
(E) PATIENT REEVALUATION

- REOBTAIN A GOOD HISTORY
 - Medical History
 - Reassessment of the medical status of the patient is paramount at this juncture to elicit any vascular coagulation ,or platelet disorders; liver disease, hypertension, anaemia, or any relevant medical condition.
 - Drug History
 - Patient in some anticoagulant are prone to acquired bleeding disorders and may thus bleed excessively after a routine tooth extraction .Drugs like heparin, warfarin, soluble aspirin, and steroid therapy has been implicated

PATIENT REEVALUATION CONT'D

- **Family History**
 - Any relevant family history of bleeding tendencies or disorders is elicited to help investigate the patient
- Previous relevant episodes
 - Personal relevant episodes of bleeding from injury or surgery will be helpful
- **IVESTIGATION**
 - Pcv/Hb
 - Platelet count
 - Prothrombine time
 - Plasma thrombplastin time
 - Bleeding time
- **REFERRAL??**
- Any aberration in values may necessitate a replacement therapy (FFP, Freshly donated whole blood, Factore Concentrate), hospitalization, or referral to a haematologist for specialist mgt
- Change of pack just prior to patient's departure, and be sure there no more bleeding before discharging him
- Give post op instructions

Management of Post-Extraction Hæmorrhage



(F) PREVENTION

❑ **Post extraction bleeding can be prevented**

- Good and comprehensive history
- Adequate investigation
- **Referral where necessary**
- Good knowledge of anatomy of op site
- Planned incision before surgery (trans alveolar)
- Adequate compression of socket after extraction
- Placement of gauze pack post operatively
- Good surgical technique
- Avoid crushing of tissue
- Removal of all granulation tissue
- Adequate post extraction instruction
- Good observation before patient is discharged

(3) CONCLUSION

A thorough preoperative assessment of every patient billed for any form of extraction is important to avoid this all important but rare surgical emergency; post extraction bleeding.

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THANKS

FOR

LISTENING