



University "Goce Delcev" – Stip Faculty of medical sciences



First Student's Congress In Dental Medicine
Digital vs. Analogical

Management of post-operative complications in maxillary teeth extraction

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Aim

- ▶ The main aim was to discuss some of the most common complications that clinicians encounter during dental extractions and proper management of the potential complications associated with the procedure.





Materials and methods

- ▶ To achieve the aim, variety of materials and methods have been used in order to appropriately manage the complications. The following materials and methods were used:
- ▶ Lligature and resorptive sutures in arterial bleeding;
- ▶ Ice packs and steroids in post-op swelling;
- ▶ Caldwell – Luc procedure in cases of tooth root in in maxillary sinus etc.

Post-operative complications in maxillary teeth extractions

- ▶ Dental extractions are commonly performed surgical procedures in the Republic of Macedonia.
- ▶ Most commonly dental extractions are performed under local anesthesia;

Most frequent post-operative complications:

- ▶ Post-operative bleeding;
- ▶ Post-operative swelling and infection;
- ▶ Sinus perforation;
- ▶ Dry socket;

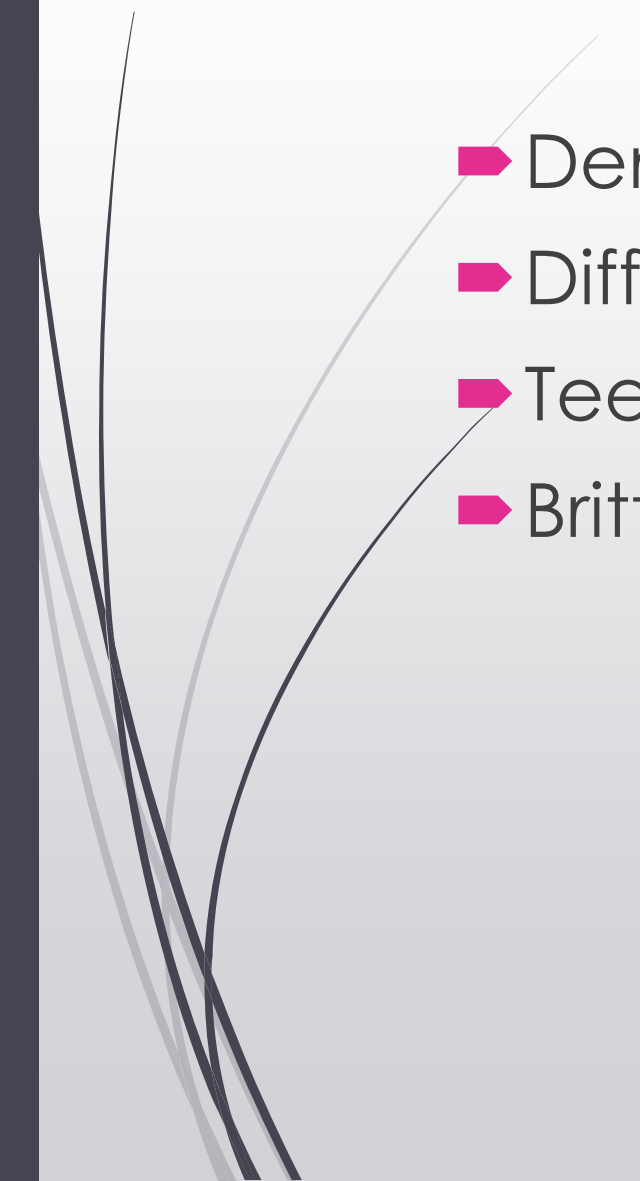


Patient related factors:

- ▶ Age of the patient;
- ▶ General health;
- ▶ Anatomical factors: tongue size, tooth structures;
- ▶ Mental health: anxiety;
- ▶ Ability to cooperate;



Local factors:

- Dense supporting bone;
 - Difficult root morphology;
 - Teeth with large restorations;
 - Brittle teeth associated with endodontic treatment;
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Post-operative bleeding

Post-operative bleeding is one of the most common complication in tooth extraction;

Post-operative bleeding from dental extraction is commonly due to venous bleed from nutrient blood vessels in the supporting bone but can also be due to an arterial source.

Other causes:

- ▶ Patients on medications such as Aspirin;
- ▶ Patients with arterial hypertension;
- ▶ Patients with hemophillia, von- Willebrand's disease, liver diseases, K-vitamin deficiency.

Management of post-operative bleeding

Initial management of post-operative bleeding:

- careful examination;
- visualization of the bleeding site;

If bleeding source is identified, we proceed to:

- applying firm pressure;
- using instruments such as curette or haemostat;
- injecting epinephrine-containing anesthetics into the site;
- applying hemostatic agent, such as Surgicel;
- electrocautery;

Management of post-operative bleeding



Post-operative swelling and infection

- Post-operative soft-tissue swelling can be a normal part of the healing process, especially after third molar extraction;
- This swelling will increase throughout the first three to four post-operative days;
- Nonsurgical post-operative swelling is usually due to infection of the surgical site;
- It usually manifests as an increase in swelling beyond Post-Operative Day 3 or 4 with increasing pain, presence of purulent drainage from the wound, and fever and chills.



Main causes of post-operative infection

- ▶ immunocompromised host:
- ▶ diabetics;
- ▶ cancer patients;
- ▶ HIV-positive individuals;
- ▶ patients under chemotherapy;
- ▶ radiation therapy;
- ▶ to poor surgical techniques;
- ▶ poor instrument sterilization;



Management of post-operative swelling and infections

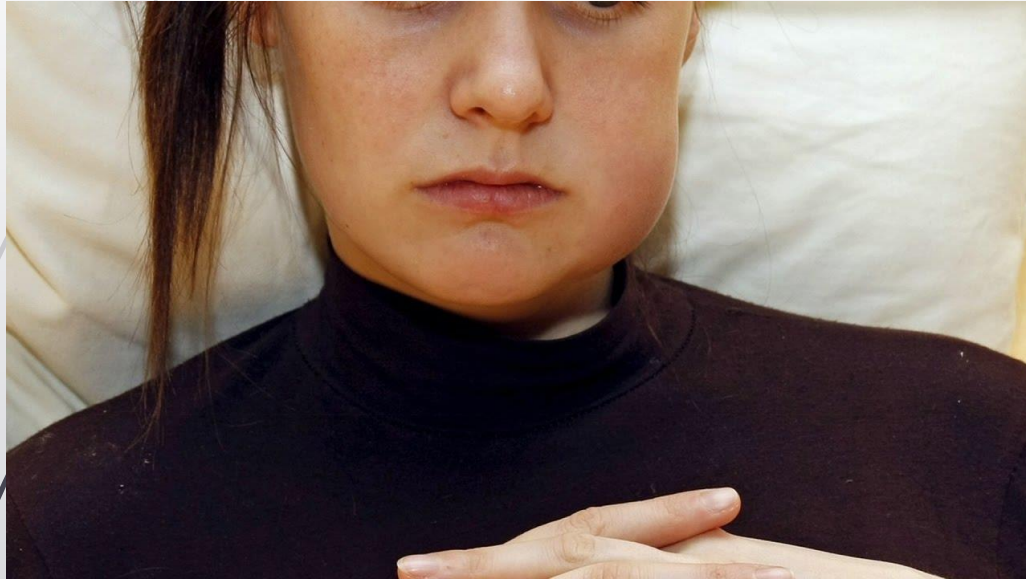
Management of post-operative swelling:

- ▶ Ice packs on every 20 minutes during the first 24–48 hours;
- ▶ Administration of steroids;

Management of post-operative infections:

- ▶ antibiotics targeted towards the most common oral flora (mainly gram-positive cocci)
- ▶ incision and drainage;

Post-operative swelling and infection



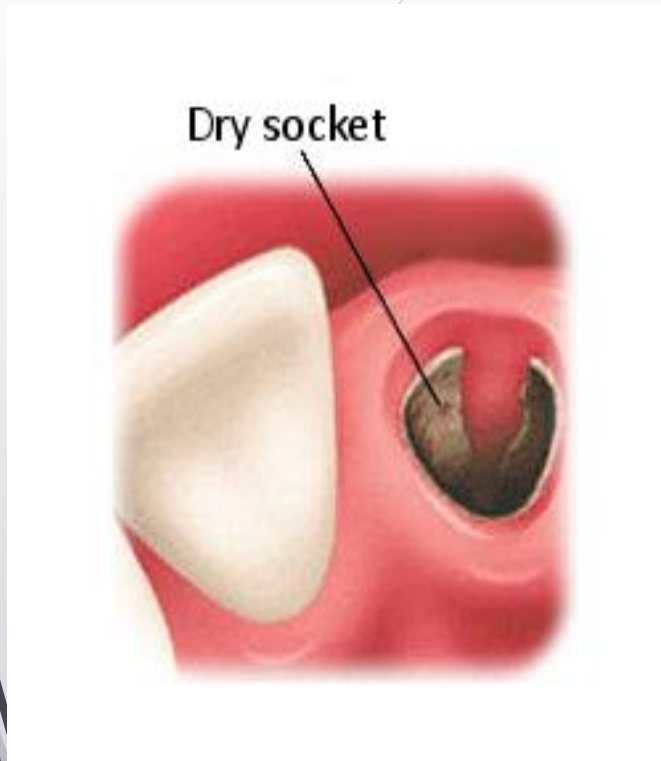
Dry socket – alveolitis sicca dolorosa

- Delayed wound healing of the alveolar bone after dental extractions;
- Usually diagnosed on Post-Operative day 3-5;
- Suddenly intensifying pain instead of gradually decreasing;
- The exact cause of dry socket is not known;
- Risk factors:
 - cigarette smoking;
 - history of head and neck radiation therapy;
 - chemotherapy;
 - oral contraceptives;
 - traumatic and prolonged extractions;

Management of dry socket

- Symptomatic pain relief with medicated dressing and analgetics;
- The socket should first be washed gently with warm saline;
- It should not be curetted as this will further delay healing;

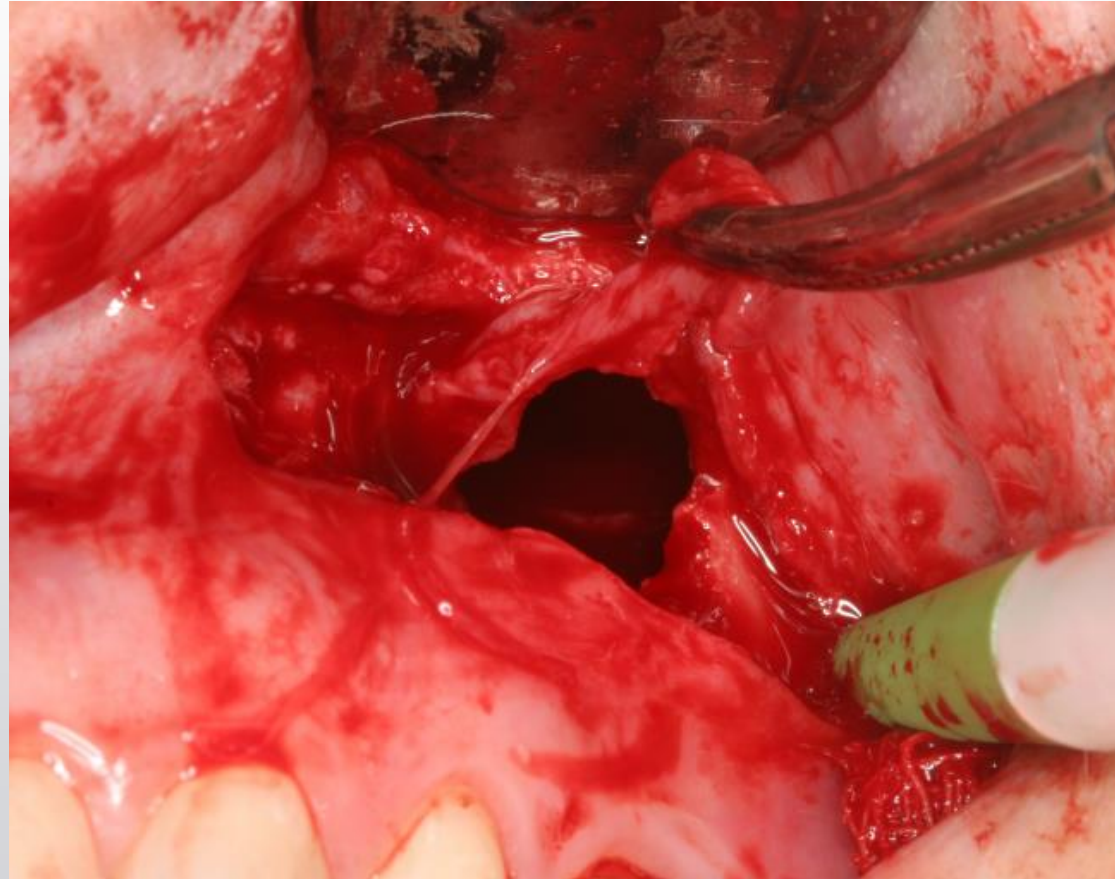
Dry socket – alveolitis sicca dolorosa



Maxillary sinus perforation

- ▶ The sinus can be easily perforated during traumatic retrieval of broken root tips;
- ▶ **Management of maxillary sinus perforation:**
- ▶ Depending on the size of the defect:
 - ▶ Small defects – 2 mm or less are left to heal alone;
 - ▶ Medium defects – 2-6 mm – sutures;
 - ▶ Large defects – 6mm or more using soft tissue flap;

Maxillary sinus perforation





**Thank you for your
attention.**