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CASE REPORT

Conservative Treatment of Mandibular Condyle Fracture in a Patient With Wegener's Granulomatosis

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Abstract

Introduction

Wegener's granulomatosis (WG) is a multisystem disease with significant morbidity and mortality, which limits invasive procedures both concerning the disease and drugs.

Case Report

The patient who applied to our clinic with a history of trauma was a 71-year-old woman. The patient had a non-displaced fracture in the left mandibular condyle at the intracapsular level and clinically vertical loss in the relevant region. A total prosthesis was applied to the patient to increase the vertical dimension in the fracture area.

Conclusion

In this case, we describe the successful management of unilateral condyle fracture with a conservative method.

Keywords: Conservative Treatment, Mandibular condyle fracture, Wegener's granulomatosis

Introduction

Wegener's granulomatosis (WG) is an idiopathic, systemic inflammatory disease characterized by necrotizing granulomatous inflammation and pauci-immune small vessel vasculitis of the upper and lower respiratory tract and kidneys. The clinical apperations of WG are usually limited to the lower and/or upper respiratory area. The lungs are commonly involved and renal involvement may also be observed. Although rare, cardiac involvement may include [1, 2].

Strawberry gingivitis is one of the signs of WG and this feature, thought to be an early manifestation is extremely rare but characteristic. The disease may run a course that might vary from indolence to one of rapid progression leading [3]. Less common sites of involvement include the skin, central nervous system, salivary gland, breast, eye and orbit, spleen, gastrointestinal system, the thyroid gland, pituitary gland, and urogenital system [1, 4].

WG has initial presenting symptoms including salivary gland enlargement oral and/or nasal ulcers. Oral manifestations of WG include delayed healing of extraction wounds, osteomyelitis, resorption, and osteonecrosis. WG is rare, the mean age at diagnosis is 55 years affects both genders, equally [1 5].

Case Report

The patient, who applied to our clinic with a history of trauma to the jaw area due to falling on a hard floor, was a 71-year-old woman. Her medical history was significant for heart rhythm disorder and WG. She was taking medications to manage these conditions, including methylprednisolone and methotrexate. In his clinical examination, widespread ecchymosis spreading to the extraoral neck planes, and limitation in mouth opening was observed (Figure 1). Radiographic examination revealed a non-displaced fracture in the left mandibular condyle at the intracapsular level and clinically vertical loss in the relevant region (Figure 2,3). A total prosthesis was applied to the patient to increase the vertical dimension in the fracture area (Figure 4). Fracture treatment was carried out by preventing complications that may occur in invasive procedures with conservative treatment (Figure 5).

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Figure 1: The view of facial and neck ecchymosis of patient

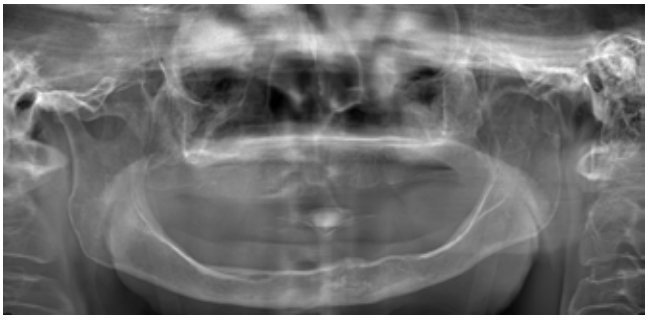

Figure 2: Preoperative panoramic view

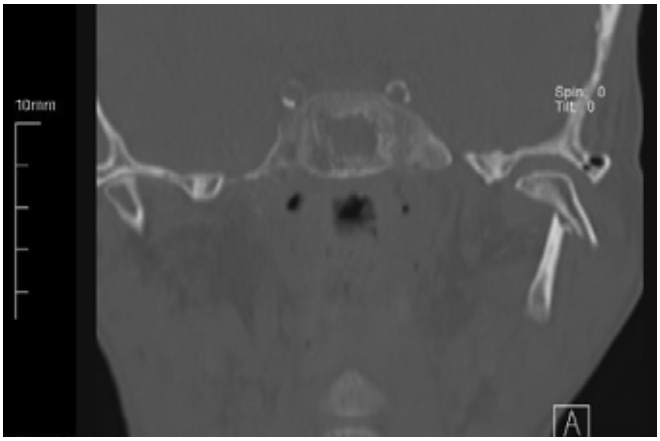

Figure 3: Preoperative Computed Tomography view

Figure 4: View of custom made total prosthesis of patient

Figure 5: Postoperativ mouth opening mesurement

Conclusion

Closed reduction applied with the functional therapy method is a relatively sure treatment. There is no injury to the blood vessels and nerves during the treatment, and no complications such as infection or scarring occur after surgery[6]. Where condyle displacement is minimal and ramus height is close to normal, closed treatment can be applied[7 8]. Functional

treatment is indicated for intracapsular and extracapsular fractures in adults without serious condylar dislocation[7]. A conservative non-surgical approach such as a removable prosthesis becomes the treatment of choice[9].

In our cases, the patient was under the treatment of WG for 10 years. WG is a multisystem disease with significant morbidity and mortality, which limits invasive procedures both about the disease and drugs[1]. Immunosuppressive therapies that are applied in the management of WG will also be a risk factor for surgical approaches[1]. Our patient uses methylprednisolone and methotrexate. With this immunosuppressive drugs can cause metabolic disorders, including electrolyte disturbances and diabetes[10].

Bacteremia arising from invasive dental procedures represents a significant potential risk in the immunocompromised patient[10]. Caution should be exercised in invasive dental management decisions the patient may also encounter infections caused by the herpes simplex virus and Candida albicans, which usually originate in the oral cavity [10]. Therefore, the dental care provider may prefer closed reduction as a treatment option for WG patients on immunosuppressive therapy. Moreover, removable prosthesis hygiene habits should be given to the patient.

The choice of surgical and non-surgical treatment for condylar process fractures is controversial[11]. This clinical report describes the prosthodontic treatment of a unilateral condyle fracture.

In our case, we performed the treatment of unilateral condyle fracture with a conservative method. We did not encounter any problems in the follow-up of the patient. We presented our case report to increase awareness of WG and dental management strategies.

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Conflict of Interest

There is no conflict of interest between authors and all authors contributed to study.
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