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An interesting case for the retained wisdom tooth in the jaw branch

In man's phylogenetic development the gradual growth of the brain part of the skull at the expense of the face part of the skull is observed. This phenomenon can be observed in the area of alveolar processes of the lower and upper jaw. It can be noticed when a place for third molar teeth is reduced, which results in disturbances when the teeth come through. As a result, the process of coming through is stopped in a different stage. Third lower molar teeth statistically belong to the most frequently retained teeth (1, 8). Retained teeth can be a reason for many pathological states: eruption cysts, local inflammatory reactions, resorption of neighbouring teeth, symptomatic neuralgia or orthodontic disturbances (5, 8).

CASE DESCRIPTION

The patient Z.Z. (46 years old) came to the dentist's because of pain and swelling of a cheek and the area under the right jaw and the associating symptoms of the periodic feeling of disturbances within the innervation of the lower right alveolar nerve.

Intraorally, there was an inflammatory infiltration of soft tissues in the area of the right angle of the jaw and an active purulent fistula on the alveolar process in the area of 48. On the pantographic image the retained right lower wisdom tooth was noticed. The tooth was placed in the right branch of the jaw slantwise to the crown directed downwards. There was a linear osteolytic loss running crosswise to the body of the mandible, which could suggest the jaw fracture (drawing 1). The patient reported an injury about 1 week earlier (a punch). The physical examination did not state any mobility of the factions and bone set-offs proving the discontinuity of the bone. It was decided to remove the tooth during an operation with local anaesthetic. The operation was performed with Citocartin 100 after prior application of the antibiotic Clindamycin in the amount of 600 mg (3, 7).

After the detachment of themucoperiosteal flap a bone loss was found around the crown of the teeth and the linear bone loss of the angle of the jaw from the cheek side.

After removing the lamella of bone from the cheek side in the area of the root, the tooth was fragmented into several parts and tenderly chiseled in the form of fragments. During the operation it was found that the lamella of bone from the tongue side was not damaged. Granulation was removed both from the dental alveolus and the area of the bone loss. The wound was stitched and the rubber seton remained for a few days. The patient continued the antibiotics therapy for 4 days after the operation (Clindamycin 3 x 300 mg) and came regularly for check-up visits.

Additionally, the patient was recommended to have 10 bio-stimulating laser interventions. The healing of the wound after the operation went without complications. The disturbed feeling in the operated area was completely retrieved after three weeks the operation. After six months the check-up image was recommended. The image showed gradual bone growth (drawing 2).



Fig. 1. In the pantomographic image the visible retained tooth 48 in the area of the jaw branch and lineal osteolytic loss



Fig. 2. The check-up image taken after six month from the operation. A visible bone growth within the operattem area

DISCUSSION

In the presented case the reason for the bone damage was the inflammatory process in the area of the retained tooth 48. In such cases the correct action is to immediately remove the tooth and to cut and drain the purulent infiltration (4, 7). Sometimes the apparently unimportant inflammatory focus can constitute a reason for serious complications which are harmful to a patient's health or life (2, 4). The cases of generalised inflammatory processes, inflammations of the jaw bones, and eye

sockets were described (2, 6). The danger is constituted both by the spreading of the inflammatory process because of its continuity and via blood vessels to sometimes distant structures of the brain, the vertebral canal, the mediastinum (4, 7). The fact that is worth noticing is that the assessment of an X-ray image does not always provide complete information on the local state of a patient. What is essential is to clinically examine a patient. Sometimes it happens that complete information on the local state is obtained in the middle of an operation.

CONCLUSIONS

The retained teeth can constitute a reason for purulent inflammatory states. The purulent effusion seeking the places of the smallest resistance can cause local bone damage. In diagnostics x-ray images of tooth inflammatory states should be complimented thorough clinical tests.

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SUMMARY

The authors presented the case of a 46-year-old patient admitted to hospital because of an abscess around the jaw, whose reason was the retained wisdom tooth in jaw branch. Additionally, when assessing the pantomographic image, the osteolytic focus was noticed. It was visible in the form of a line running crosswise the body of the mandible, suggesting the jaw fracture.

Interesujący przypadek zatrzymanego zęba mądrości w gałęzi żuchwy

Autorzy przedstawili przypadek 46-letniego pacjenta przyjętego z powodu ropnia okołozuchwowego, którego przyczyną był zatrzymany ząb mądrości w gałęzi żuchwy. Dodatkowo podczas oceny zdjęcia pantomograficznego zauważono ognisko osteolityczne cieniujące się w postaci linii biegnącej w poprzek trzonu żuchwy, sugerujące złamanie żuchwy.