

IMPORTANCE OF KNOWING ORAL PATHOLOGY ASSOCIATED TO PATIENTS WITH HAEMATOLOGICAL DISEASE

LAURA ȘTEF¹, GABRIELA BOȚA², ANDREEA ȘTEȚIU³, ADRIANA SĂCELEANU⁴, ALINA CATANA⁵

^{1,2,3} "Lucian Blaga" University of Sibiu, ⁴ PhD candidate "Lucian Blaga" University of Sibiu, ⁵ Clinical County Emergency Hospital of Sibiu

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Abstract: This article aims at presenting an algorithm to address the patients with haematological disease in dental offices. The therapeutic act of the dentist should be differentiated according to the type of haematological disease of the patient, its seriousness and clinical form. Sometimes, oral manifestations are early signs of a coagulation disorder. Detection of these changes of colour and structure of the oral cavity fall in the responsibility of the dentist, and the collaboration between dentist and hematologist is essential in managing such cases.

Cuvinte cheie: cavitate orală, afecțiuni hematologice, managementul pacientului

Rezumat: Articolul de față își propune să prezinte un algoritm de abordare în cabinetul de medicina dentară, a pacientului cu afecțiuni hematologice. Actul terapeutic al medicului dentist trebuie diferențiat în funcție de tipul afecțiunii hematologice a pacientului, gravitatea acesteia și forma clinică. Uneori manifestările orale sunt semne precoce ale unei tulburări de coagulare. Depistarea acestor modificări de culoare, structură, ale cavității orale sunt responsabilitatea medicului dentist, iar colaborarea acestuia cu medicul hematolog este esențială în managementul unor astfel de cazuri.

In dentistry, the case of patients with haematological diseases often raises problems to the practitioner. Especially those patients with haemophilia, leukaemia, lymphoma and thrombocytopenia are requiring special dental care. In these cases, the practitioner may encounter hemorrhagic syndrome and/or infectious syndrome. Therefore, a tied collaboration with the hematologist in handling such cases is necessary, when the patient was diagnosed with such disorders.

The cases presented below have been handled, during the last years, due to a tied collaboration between the Department of Oral Pathology of the "Victor Papilian" Faculty of Medicine and with the Department of Haematology within the Clinical County Emergency Hospital of Sibiu.

In order to manage in a proper way such a patient, special attention should be paid to each step, according to the following algorithm:

1. anamnesis and the history of the patient,
 2. loco-regional dental examination,
 3. additional radiological examinations, laboratory investigations, histopathological examination etc.,
 4. proper assessment of the diagnosis and the treatment plan, mentioning the bleeding manoeuvres,
 5. collaboration with the haematologist in order to prepare the pre and post dental intervention,
 6. control and the dispensarization.
1. An anamnesis carefully handled along with the medical history of the patient could guide us to the hematologic disease. For the dentist, the problems arise when he/she detects signs that could lead to a malignant homeopathic diagnostic. In this case, it is the dentist' carefulness and competency that lead sometimes to an early diagnosis having thus, a decisive role in the case evolution and prognosis.

During the anamnesis we could learn more about:

- *Modifications of the general statement:* fever, marked asthenia, night sweats, weight loss (more than 10% in 3 months)
- *Heredocolateral antecedents* - haemophilia is a X-linked transmitted disease, autosomal recessive.
- *Medication* - can cause thrombocytopenia, which in the clinical practice refers to hemorrhagic syndrome

2. The orofacial examination will provide new information about a possible hematologic disorder.

Oral manifestations can sometimes be the first alarm, or the first sign in diagnosing the disease, especially in its acute forms. These are:

- a) Spontaneous Gingivorrhagia from acute myeloid leukaemia
- b) bruises in soft and hard palate, or oral mucosal petechiae
- c) ulceronecrotic gingivostomatitis
- d) mycotic stomatitis
- e) multiple and giant ulcerations with no local irritation cause and especially with no healing tendency

The submandibular and the lateral cervical lymphadenopathies – are a pathognomonic sign and one of the diagnostic criteria and they could be the sign of an onset of acute Leukaemia

In the chronic forms, the oral manifestations are not so evident, especially due to chemotherapy or radiation. Sometimes, the oral manifestations occur as a consequence of the applied medication.

- Ø Xerostomia, caused by the cytostatic treatment
- Ø Oral ulcer – Methotrexate, Cyclosporin, Propylthiouracil, Vincristine, Chlorambucil, Leukeran (Chlorambucil)
- Ø Gingival hyperplasia, Cyclophosphamide, Idarubicin

In order to underline the importance of the anamnesis

¹Corresponding author: Laura Ștef, Str Resita nr 23 Sibiu, Romania; e-mail: laurastef1@yahoo.com; tel +40-0745263800

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CLINICAL ASPECTS

and of the loco-regional examination, we hereby present the case of a patient, D.A., 42 years old, who came to the dentist for a pain in axe pressure at tooth 2. 5 and who had ecchymosis on the third part of the posterior hard palate.

Figure no. 1. The patient, D.A., Palatal ecchymosis

Figure no. 2. The same case, OPT imaging

The radiological examination leads to Apical Granuloma and apical resection is thus indicated.

- As trauma was excluded and with suspicion of idiopathic thrombocytopenic purpura, the patient was sent for further laboratory investigations.
- The complete blood count indicates *22.000 thrombocytosis per mm³*. For instance, an urgent hematologic consultation was needed.
- Bone marrow aspiration shows the presence of megakaryocytes thrombocytes, which establishes the peripheral character of thrombocytopenia and confirms the diagnosis of thrombocytopenic purpura.
- After 5 days of cortisone therapy, the number of thrombocytes is normalized -210 000/mm³.
- As the patient refuses the apical resection, the extraction of 2.5 tooth has been made, followed by a normal post-extraction wound healing.
- As a particularity of the case, only quantitative thrombocytes' modifications were intercepted and not quantitative ones; also the palatal suffusion was the only objective sign, as the patient did not have either Cutaneous-mucous hemorrhagic syndrome or peripheral adenopathies.

From the hematological point of view, the case evolution was towards splenectomy, given that five cortisone therapy cures were made without obtaining satisfactory outcomes.

There are cases where oral manifestations could be complications of the basic affections.

- Ø Opportunistic infections: reactivation of herpes virus or Varicella zoster virus,
- Ø The oral and the pharyngeal candidiasis occur due to a complication of the prolonged cortisone therapy and due to the decrease of local immunity,
- Ø Paraneoplastic tumours, for example, Squamous cell carcinoma, the most common paraneoplastic tumour in the patients who suffer from allogeneic stem cell transplant; hence it is the responsibility of the dentist to be informed and do a preventive and trustworthy oncologic control.

Another case we had to cope with was the one of a patient, C.C., 61 years old, with giant cell tumour, occurred in the context of a Hepatitis C virus and who was diagnosed with

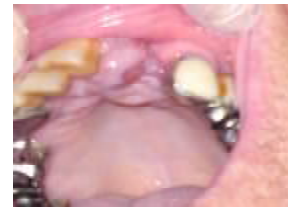
malignant non Hodgkin lymphoma (NHML), in 2010. The general treatment was a surgical procedure - splenectomy and polychemotherapy - Vincristine 2mg, Idarubicin 20mg and Cyclophosphamide 600mg Corticotherapy 3phials/day, Cladribine, for 5 days.

The patient suffers of Hepatitis C virus and Type 2 diabetes due to corticotherapy. The patient observes a superior maxillary malformation which grows during the past six months. When examining the oral cavity, a soft tumour formation, in good shape, 2x 1,5cm, in front of tooth 22, on the gingival fibromatosis, could be observed which was extended both in the vestibular and palatal area.

Figure no. 3. Patient CC (NHML). A Preoperative image



Figure no. 4 Patient CC (LMNH). Postoperative Image one month later



An excisional biopsy of the tumoral formation is done while the histopathological exam reveals a benign giant cell tumour, which will be analyzed during dispensarisation.

In conclusion:

- Ø The dental therapeutic act should be differentiated according to the type of the patient' hematologic affection, its severity and its clinic form.
- Ø Not only in the case of patients with haemophilia, but also for those with acute leukaemia, any treatment implying bloody manoeuvres without previous preparation is forbidden.
- Ø Interdisciplinary collaboration between the haematologist and the dentist is mandatory in handling such cases.
- Ø Do not forget that the dentist could be the first chain in diagnosing a malign hemopathy, only if a preventive and careful oncologic examination of oral mucosa along with a well driven medical investigation and additional pertinent solicitations are made.

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