

Evaluation of the oral mucosa of crohn's disease outpatients: A case control study

Abstract

Introduction: we aimed at the evaluation of the oral mucosa in Crohn's disease patients and matched controls. Due to the protracted course of Crohn's disease, its diagnosis may be difficult, and the finding of lesions in the oral mucosa may help to raise the clinical suspicion.

Methods: we studied 124 adult patients older than 18 years, of both sexes, 62 outpatients with Crohn's disease and 62 controls matched by sex and age. We searched for aphthous ulcers, orofacial granulomatosis, mucosal tags, leukoplakia and pyostomatitis vegetans. Both investigators, dentist and physician, were blind respectively to the patient diagnosis, and to findings of the odontologic examination.

Results: only six patients among the total sample had oral mucosal lesions, being 5 controls (two with fibrous hyperplasia due to prosthesis trauma, one with labial herpes simplex, one with a hemangioma and one with lichen planus) and one Crohn's disease with labial herpes simplex. Some patients reported a past history of lesions suggestive of aphtae, being six control patients (9.6%) and nine Crohn's (14.5%). No orofacial granulomatosis, mucosal tags, leukoplakia or pyostomatitis vegetans were seen.

Discussion: in our population of adult patients with Crohn's disease and controls, we found that oral mucosal lesions were scarce and similar among controls and cases.

Keywords: oral diagnosis, oral cavity, oral mucosa, oral medicine, crohn's disease

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Abbreviations: CD, crohn's disease; IBD, inflammatory bowel disease

Introduction

Crohn's disease is a chronic condition of the digestive system, of unknown etiology, characterized by the predominant location in the small intestine and colon, although lesions may occur in other places of the digestive tract, among them the oral cavity.¹⁻⁴ Due to its prolonged course, its diagnosis may be difficult, and the encounter of lesions in the oral mucosa may help to raise the suspicion. The prevalence of oral manifestations in patients with Crohn's disease varies between 0% and 9%⁵ in adults. These manifestations may precede or be present concurrently to intestinal symptoms. The most reported are: aphthous ulcers, angular cheilitis, orofacial granulomatosis, mucosal tags, leukoplakia and pyostomatitis vegetans.⁵⁻⁸

In Brazil, local authors reported only few studies of patients with Crohn's disease and findings in the oral mucosa.^{9,10} These studies refer to reports of only one case per author. Lind et al.,¹⁰ in 2006, described the case of a patient who sought dental care with the complaint of painful ulcer in the mouth for 30 days and that during the interview reported the presence of blood in the feces and abdominal pain. The patient received dental treatment and was sent to the gastroenterologist, thus the oral manifestation helped in raising diagnostic suspicion. Lourenco et al.,⁹ described the case of a 16 years old patient who presented linear ulcers in the mouth, in addition to weight loss and a history of arthralgia since a year ago. Biopsy of the oral lesion was performed and showed the presence of a non-caseating granulomatous infiltrate suggesting Crohn's disease. The primary objective of this study was to evaluate the frequency of findings in the oral mucosa of patients with Crohn's disease and controls.

Patients and methods

We studied 124 adult patients older than 18 years, of both sexes, 62 with Crohn's disease treated at the outpatient Gastroenterology clinic of the Faculdade de Medicina do ABC, and 62 controls matched by sex and age, from the outpatient clinics in Neurology, Urology, and Dermatology. Prior to the oral examination, the control patients were screened with medical records and clinical history. Patients reporting rectal bleeding, recurrent abdominal pain, weight loss, persistent fever or diarrhea were excluded from the study.

The sample was obtained through the inclusion of consecutive patients. The researcher dentist was blind as to the patient's diagnosis. On the other hand, the physician investigator only had the results of the oral examination during the tabulation of data, after the inclusion of the participants had been closed. The oral evaluation sought to assess the oral mucosa of patients, in search of aphthoid lesions, angular cheilitis, orofacial granulomatosis, mucosal tags, leukoplakia and pyostomatitis vegetans. The study was approved by the Ethics Committee of Faculty of Medicine of ABC, (protocol number 239/2008) and all patients signed an informed consent before entering the study.

Results

There were 34 women and 28 men in each group. Among the patients with Crohn's disease, eight were in activity (12.9%) and the other in clinical remission. During the oral examination, the presence of lesions in the oral mucosa was seen in only six patients (Table 1). In some patients we obtained a history of lesions very suggestive of aphthous ulcers, although they were not found at the time of oral examination. They were six control patients (9.6%), and nine patients with Crohn's disease (14.5%).

Table 1 Findings in the oral mucosa of patients from the control and crohn's disease groups

Patient	Group	Gender	Age	Diagnosis
GDA	Control	Female	63	Inflammatory fibrous hyperplasia (prosthesis trauma)
LAMC	Control	Female	44	Inflammatory fibrous hyperplasia (prosthesis trauma)
PLS	Control	Male	68	Hemangioma
NTU	Control	Female	61	Herpes simplex
FRJ	Control	Male	61	Lichenoid reaction
SHEDD	Crohn	Female	51	Herpes simplex

Discussion

The symptoms of Crohn's disease can mimic other illnesses and have an evolution marked by periods of exacerbation and remission. These factors, combined with a low index of clinical suspicion on the part of the health professional can often result in a delay in diagnosis.¹¹ Frequently, such complaints suggestive of the disease exist for months and even years before the diagnosis is made. Early diagnosis and therefore, the institution of effective treatment as soon as the beginning of the disease, is fundamental to minimize an unfavorable prognosis in the future, such as hospitalizations and surgeries.

Some oral lesions have been postulated as possible indicators of the existence of Crohn's disease. However, several of these assertions were based only on sporadic case reports.^{1,5,7,9,10} For example, Rehberger et al.,⁵ described the case of a 20 years old patient, with painful intra-oral lesions. On endoscopy extensive lesions of the gastrointestinal tract were seen, and biopsies confirmed the diagnosis of CD. The authors warn that the presence of inflammatory lesions in the oral cavity indicate a possible diagnosis of CD. Michailidou et al.,⁷ conducted a retrospective study with only five patients, found labial edema, in addition to erosions and deep ulcers the oral cavity, and believed that the recognition of these oral lesions may contribute to an early diagnosis since these changes can be the first sign of Crohn's disease.

Studies with larger sample sizes had also suggested that the finding of certain oral lesions may be indicative of Crohn's disease, especially in children. Harty et al.,⁶ in a prospective study of 3 years, held detailed oral examination in all children suspected of inflammatory bowel disease (IBD). Among 49 children with Crohn's disease, oral lesions were found in 41.7%, being four with mucosal skin tags, four with deep ulcerations, three patients with cobblestone lesions, three with labial edema and one patient with piostomatitis vegetans. Pittock et al.,⁸ evaluated 45 children with a recent diagnosis of CD, of whom 48% had oral lesions, being the mucosal skin tags more common, concluding that the examination of the oral cavity may be useful for the diagnosis of a suspected Crohn's disease.

These oral lesions in patients with Crohn's disease may be transitory, but recurring, and may not be present at the time of the examination in a cross-sectional study. Therefore, prospective studies are the ideal design for this kind of research. Prospective studies with larger sample sizes have produced results that weaken the possible role of the presence of oral lesions as indicators of Crohn's disease. In a study conducted by Colella et al.,¹² assessing the oral mucosa of 100 adult patients with Crohn's disease and ulcerative colitis for a period of 5 years, there were five patients with aphthous ulcers, a patient with papilloma, one with fibroma and one with leukoplakia. The author concluded that the results of this study reduced the importance of an association between inflammatory bowel disease and oral

manifestations. However, in this Italian study, there was not a control group of individuals without IBD.

Our clinical practice suggested that the finding of these injuries would be infrequent. We have included controls matched by sex and age, coming from the same population from which the sample of Crohn's disease patients was extracted. Our findings are consistent with the study of Colella et al.,¹² In our series, we found only two patients with inflammatory fibrous hyperplasia, two patients with herpes simplex, one with hemangioma and one patient presented a lichenoid reaction. Regarding the presence of aphtae, they were not observed in any of the 124 patients at the time of the oral examination. In an attempt to establish the possible past frequency of those, all patients were asked about the symptoms that we considered typical of aphtae (small painful ulcers in the oral mucosa, with a maximum duration of seven to ten days, whitish, spontaneous resolution). We had a history suggestive of these previous injuries in six patients in the control group (9.6%) and nine in group Crohn (14.5%).

In summary, in our population of 64 adult patients with Crohn's disease and controls, we found that the finding of aphtae occurred in reduced frequency, mucosal tags, leukoplakia, piostomatitis vegetans or orofacial granulomatosis were not observed at all. Our results suggest a low prevalence of oral lesions in adult Crohn's patients, apparently not different from controls.

Acknowledgments

None.

Conflicts of interest

Authors declare that there is no conflict of interest.

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