ARCHIVES OF HEAD AND NECK SURGERY
ISSN 2595-2544

CASE REPORT

Cicatricial pemphigoid with laryngeal involvement

Caio Fortier Silva[1]*, Anna Caroline Rodrigues de Souza Matos[2], Ana Carla Albuquerque dos Santos[3], Teresa Neuma Albuquerque Gomes Nogueira[4], Viviane Carvalho da Silva[2]

Abstract

Cicatricial pemphigoid is an uncommon chronic autoimmune inflammatory disease that affects predominantly the mucous membranes. The precise cause of this condition is yet to be fully identified, as well as the mechanism behind the commonly observed subepithelial blistering. This manuscript reports a case of cicatricial pemphigoid with laryngeal involvement, which is a rare manifestation of this also uncommon disease. The patient underwent surgery and specimens were submitted to histopathological examination and immunofluorescence assays, and both ultimately indicated cicatricial pemphigoid.

Keywords: cicatricial; pemphigoid; laryngeal.

[1]Universidade Federal do Ceará (UFC), Faculdade de Medicina, Fortaleza, CE, Brasil

[2]Universidade Federal do Ceará (UFC), Hospital Universitário Walter Cantídio, Serviço de Otorrinolaringologia, Fortaleza, CE, Brasil

[3]Universidade Federal do Ceará (UFC), Hospital Universitário Walter Cantídio, Serviço de Cirurgia de Cabeça e Pescoço, Fortaleza, CE, Brasil

[4]Universidade Federal do Ceará (UFC), Hospital Universitário Walter Cantídio, Serviço de Patologia, Fortaleza, CE, Brasil

Financial support: None.
Conflicts of interest: No conflicts of interest declared concerning the publication of this article.
Submitted: April 26, 2019.
Accepted: November 17, 2019.

The study was carried out at the Hospital Universitário Walter Cantídio, Fortaleza, CE, Brasil.

Introduction

Pemphigus is a group of dermatoses of unknown etiology, with presence of pathological mechanisms based on autoimmune response, in which there are changes in epithelial cellular cohesion involving mainly the oral, ocular, nasopharynx, genital and esophageal mucosae and the skin. Cicatricial pemphigoid (CP) is a subtype of this disease whose main characteristic is the formation of vesiculobullous lesions in the previously mentioned epithelia with preference for the oral mucosa, in which healing results in scarring with formation of synechiae. When this disease involves the larynx, it requires an aggressive approach, because it can progress to airway obstruction. This is a case report of CP with involvement of the laryngeal mucosa, one of the rarest and most serious sites of disease onset.

Case report

A previously healthy 38-year-old man began experiencing multiple 1-3 cm painful vesicles on the soft palate and jugal mucosa two years ago, which evolved to ulcers with fetid purulent bloody discharge associated with odynophagia. Such ulcers persisted for one week concomitantly with the emergence of new vesicles. The patient reported not having genital lesions and presenting anal fissures. The condition of the jugal mucosa worsened, and he presented with edema and ocular hyperemia with a feeling of "sand in the eyes", pruritus, painful eye movements, photophobia, and left sided purulent secretion with turbid sight. He reported cough with yellowish bloody discharge in large quantities combined with ventilator-dependent thoracic

pain, as well as recurrent weight loss of approximately 15Kg in this period, adynamia, and night sweats. Dyspnea on moderate exertion, progressive dysphonia and dysphagia started six months ago. During hospitalization, the patient underwent otorhinolaryngological evaluation. It showed scarring in the retromolar jugal mucosa and a vesicle in the left soft palate. The nasofibrolaryngoscopy showed a synechia in the right nasal vestibule, thickened and shortened aryepiglottic ligaments, supraglottic synechiae, posterior omega-shaped epiglottis, a cicatricial lesion on the lingual surface of the epiglottis, and hyperemia of the vocal folds without glottic synechiae. The patient also reported the appearance of papular lesions on the posterior thigh, which regressed with the use of dexamethasone ointment. Biopsy of the palate and conjunctiva vesicles was performed and the histopathological examination revealed acanthosis and suspected pemphigus vulgaris (Figure 1). Immunofluorescence assays of the samples defined the diagnosis of cicatricial pemphigoid (Table 1) (Figure 2). After corticosteroid and dapsone combination therapy, the disease is under remission with clinical control of the symptoms.

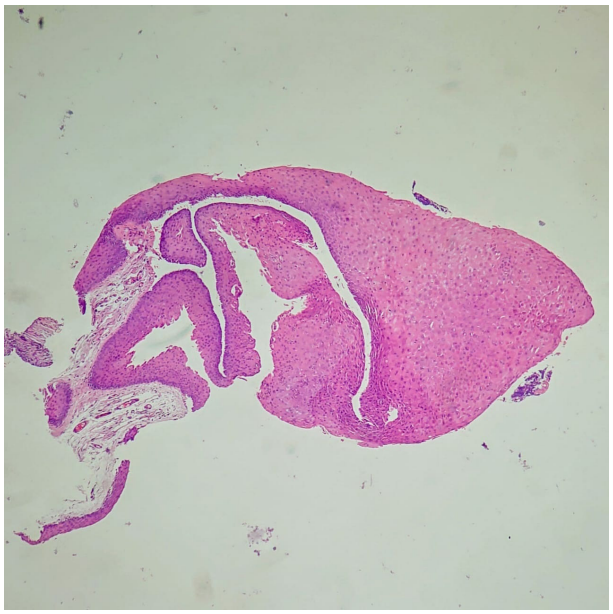

Figure 1. Histopathological biopsy of the conjunctive lesion, showing acanthotic epithelium (HE, 40x).

Table 1. Results of the immunofluorescence assay.

IMAGE	REAGENT	RESULT
A	C3c	POSITIVE (linear in dermal blood vessels and negative in the basement membrane zone)
B	C1q	NEGATIVE
C	FIBRINOGEN	POSITIVE (linear in the basement membrane zone)
D	IgM	NEGATIVE
E	IgA	NEGATIVE
F	IgG	POSITIVE (linear in dermal blood vessels and negative in the basement membrane zone)

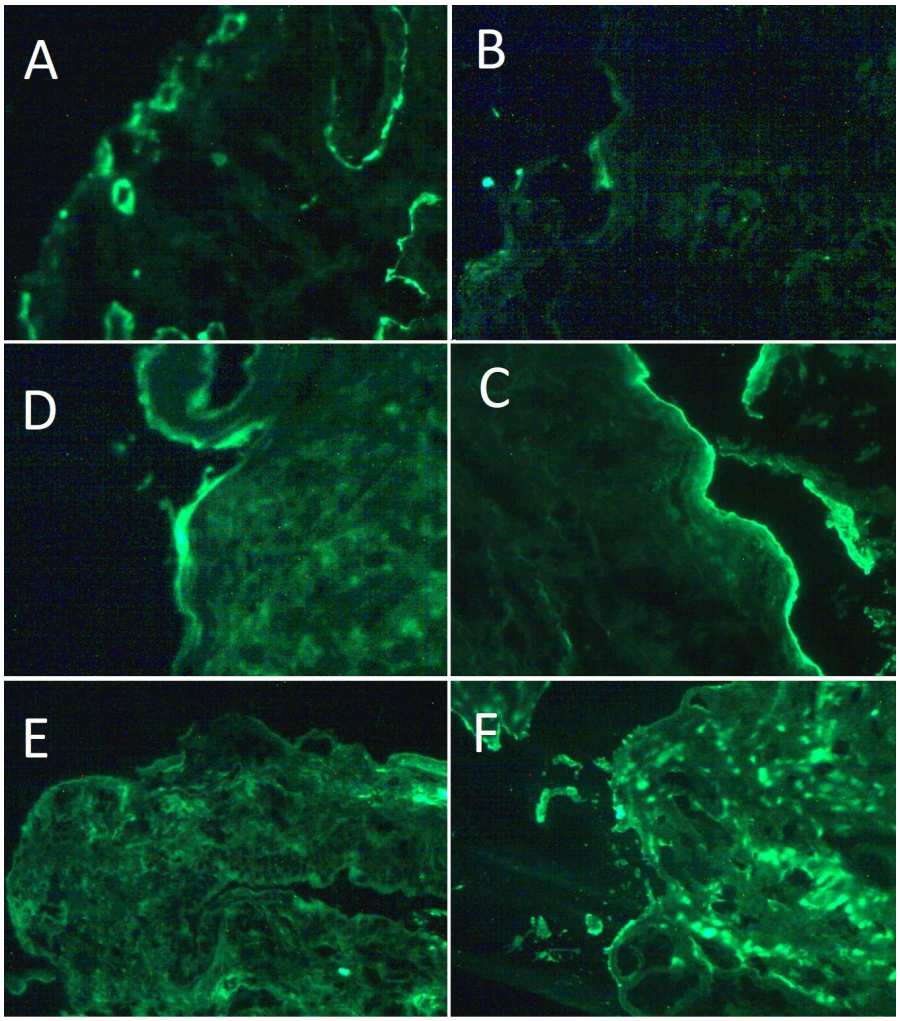

Figure 2. Immunofluorescence exam images.

Discussion

Cicatricial pemphigoid (CP) is a rare autoimmune bullous subepithelial disease characterized by chronic inflammation of the mucous membranes (Figure 3) that develops with scarring and formation of synechiae. It presents higher incidence in elderly women. It involves mainly the oral (90%), nasopharyngeal, ocular, cutaneous, genital, esophageal and laryngeal mucosae (8-9%). Epidemiological data on CP cases of the Oral Pathology Laboratory, College of Dentistry, Pontifical Catholic University of Minas Gerais (FO/PUC Minas) suggest a higher prevalence in women aged 51-60 years. There is disagreement about its predilection for race. Some authors stated that there is no such predilection[1], whereas reported preference for Caucasians[2].

The main laryngeal findings described are erosions and synechiae on the laryngeal surface of the epiglottis, aryepiglottic folds and arytenoid cartilages, causing stenosis and possibly evolving to airway obstruction, whereas the main ophthalmological finding is symblepharon, which can evolve to blindness. Due to the idiopathic nature of the pathology and its rarity, the diagnosis

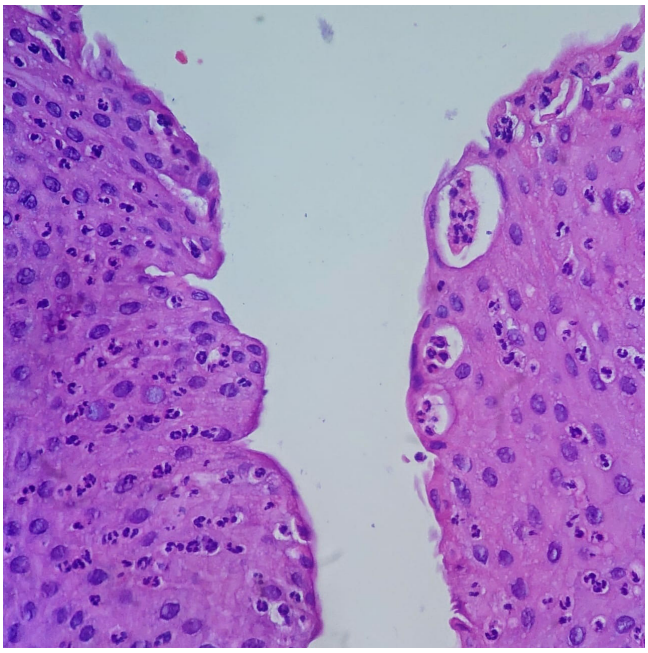

Figure 3. The histopathology biopsy of oral mucosa shows acanthosis in the lining epithelium and devoid area of the epithelium with a moderate lymphocytic inflammatory infiltrate (HE, 100x).

of this disease is quite complex and requires extensive investigation by a multiprofessional team that includes otolaryngologists, ophthalmologists, dermatologists, rheumatologists and other health professionals, considering the need to differentiate from a variety of pathologies with similar clinical presentation. Many drugs such as ibuprofen, enalapril and furosemide, vaccines such as that against Influenza, infestations such as scabies, as well as ultraviolet phototherapy, may lead to clinical and immunological findings very similar to those of the disease under study. Therefore, there is common need of more than one biopsy so that a definitive diagnosis can be rendered.

The symptoms of CP vary considerably, and lesions are not always observed symptomatic patients without lesions identifiable on physical examination are common, as well as asymptomatic patients with lesions.

A previous prospective study showed the effects of this pathology on the nasal, pharyngeal and laryngeal mucosae[3]. Among the symptoms, they reported epistaxis (26%), pharyngalgia (24%), dysphagia (40%) commonly associated with significant weight loss secondary to odynophagia, dysphonia (18%), dyspnea (13%), nasal obstruction (37%), and nasal crusting (82%). As for laryngeal involvement, the most common lesion was erosion of the epiglottic mucosa (34% of cases), as observed in the present case report. Similar lesions were also described in the inter-arytenoid cartilages and aryepiglottic folds, with possible formation of synechiae joining the epiglottis to the vestibular and aryepiglottic folds, resulting in severe airway stenosis.

Treatment of CP is quite controversial. There are few clinical trials addressing the treatment of this disease, thus the clinical conduct can vary according

***Correspondence**
Caio Fortier Silva
Universidade Federal do Ceará (UFC), Faculdade de Medicina
Rua Esperanto, 535, Parreão
CEP 60410-312, Fortaleza (CE), Brasil
Tel.: +55 (85) 98683-8770
E-mail: fortier.caio@gmail.com

Authors information
CFS - Estudante de Medicina na Universidade Federal do Ceará. ACRSM - Otorrinolaringologista. ACAS - Cirurgiã de Cabeça e Pescoço. TNAGN - Patologista, Mestre em Farmacologia na área de Concentração da Inflamação pela Universidade Federal do Ceará. VCS - Otorrinolaringologista e Doutora em Ciências Médico-Cirúrgicas pela Universidade Federal do Ceará.

to the experience of the attending physician. Treatment is highly dependent on the degree of involvement of the target mucosa and lesion site of onset. Laryngeal involvement, for example, demands a more aggressive treatment approach, with a combination of immunosuppressive drugs and inhalable corticosteroids, because it poses an important risk to the patient. There is an international consensus report that recommends dividing patients into two groups: one with the disease restricted to the oral mucosa and another with involvement of the ocular, laryngeal, esophageal and genital mucosae. Systemic corticosteroids are recommended in more severe cases.

Also, previous study has reported intravenous IVIg immunoglobulin treatment for CT with good results, enabling reduction and, eventually, elimination of the use of corticosteroids[4]. The surgical approach to laryngeal strictures is a topic of debate among many surgeons due to the feasibility of performing a contaminated procedure on a patient undergoing corticosteroid therapy, and thus immunosuppressed, and to the recurrent nature of the disease.

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