Bullous pemphigoid and primary biliary cirrhosis, an infrequent association: a case report

Pénfigo buloso y cirrosis biliar primaria, una asociación infrecuente. Reporte de caso

Primary biliary cholangitis (PBC) is an autoimmune cholestatic disease associated with the presence of antimitochondrial antibodies (AMA). It exhibits an extensive number of extrahepatic autoimmune manifestations and a subgroup of patients present with other autoimmune skin diseases.1

We present herein the case of a 45-year-old woman diagnosed with PBC of 10-year progression, in advanced stage, with cirrhosis identified through ultrasound and a Child-Pugh grade C classification (11 points). She had been treated with ursodeoxycholic acid with adequate biochemical response according to the Paris criteria up to the age of 43 years. The patient presented with a progressive increase of AST, ALT, bilirubin, and alkaline phosphatase, with disease progression and change in the Child-Pugh grade (A: 6 points; C: 11 points). She had lichen planus in childhood and was diagnosed with breast cancer in 2002. She underwent radical mastectomy, chemotherapy, and radiotherapy, and had total disease remission since 2008.

The patient sought medical attention at the emergency department for dermatosis of 21-day progression, characterized by fragile, blistering vesicular lesions with an erythematous halo. They initially appeared on the right upper limb and disappeared spontaneously. They later appeared in a generalized manner on the two lower extremities. Dermatologic examination revealed large denuded blisters with a fibrin-covered base (fig. 1) (some with necrotic edges), negative Nikolsky’s sign, no mucosal involvement. In addition, there was paronychia and subungal hyperkeratosis, consistent with the diagnosis of tinea pedis. She presented with lymphedema of the right upper extremity and ipsilateral mastectomy. The skin biopsy report was subepidermal blister with a superficial, mixed, perivascular, inflammatory infiltrate consistent with bullous pemphigoid (BP). The skin lesions were not cultured and viral inclusions were not found in the biopsy. While hospitalized, the patient presented with a bladder catheter-related urinary tract infection, acute renal lesion, and spontaneous bacterial peritonitis, followed by septic shock attributed to the urinary infection, which ended in her death 5 days after hospital admission.

Discussion

The dermatologic manifestations commonly associated with PBC are: nonspecific xanthomatous lesions and melanosis. Less frequent manifestations are lichen planus, scleroderma, and CREST syndrome (calcinosis cutis, Raynaud phenomenon, esophageal dysmotility, sclerodactyly, and telangiectasia). PB only appears in case reports.2

PB is a frequent autoimmune skin disease representing 70% of the cases of primary autoimmune dermatosis. It is characterized by the presence of autoantibodies that are directed against the BP180 antigenic proteins, also known as bullous pemphigoid antigen 2 (BPAG2) or type XVII collagen, and BP230 or BPAG1 found in hemidesmosomes located along the basement membrane zone. Its clinical characterization is the initial appearance of very pruriginous urticaria-like or eczema-like lesions. Tense blisters can appear over them that are very large with a serous and hemorrhagic content. They are mainly located on the trunk of the body and the flexor surface of the extremities. Diagnosis is clinical, histologic, and immunologic.3

The association of BP with other autoimmune diseases has been previously referred to, but a common etiopathogenic pathway has not been demonstrated.4

Six cases of BP and PBC have been reported in the medical literature over the last 36 years and at present their association is considered coincidental. The prognosis for survival is poor in patients with BP and no other autoimmune disorders, reaching 30% at one year. Death is frequent within the first 12 weeks after treatment onset and its causes include adverse effects of therapy, superimposed infections, and complications related to the underlying disease.5


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Figure 1  A-C) Histologic slides showing a subepidermal blister with a mixed superficial perivascular inflammatory infiltrate consistent with bullous pemphigoid; D-F) These images correspond to dermatologic lesions made up of large, denuded blisters with a fibrin-covered base, some of which have necrotic edges.

The habitual behavior of patients with coincident PBC and PB is unknown. Previous reports 6–8 refer to patients recently diagnosed with PBC and there are short-term reports on treatment response. Despite its rareness, it is important to begin opportune and multidisciplinary management. The recommended treatment in the majority of the guidelines includes prednisone (0.75 mg/kg), dapsone (100 mg/24 h), or azathioprine (100-150 mg/day). The aim is to prevent complications such as disease extension and severity and the development of infections that negatively affect prognosis, as in the present case.

The unfortunate case of our patient reflects the delay in seeking medical attention that resulted in a fatal outcome. In addition, early disease onset is associated with a worse prognosis and a higher failed treatment rate. Even though this was not a case of multiple autoimmune diseases, we decided to report on the association of the two pathologies, given its unusual presentation, and thus increase clinical awareness in regard to these entities.

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Conflict of interest

The authors declare that there is no conflict of interest.

References

Multiple and synchronous squamous cell carcinoma of the esophagus in a young woman: An example of early and rapid carcinogenesis?

Carcinoma epidermoide de esófago múltiple y sincrónico en una mujer joven: ¿un ejemplo de carcinogénesis temprana y rápida?

Tumor multicentricity is occasionally observed in esophageal squamous cell carcinoma.\(^1\)\(^-\)\(^3\) It is linked to genetic instability of the p53 gene, added to the loss of heterozygosity, as early events of the carcinogenesis of multifocal or multiple squamous cell carcinoma of the esophagus,\(^3\)\(^,\)\(^5\) and to risk factors associated with the environment and lifestyles.\(^2\)\(^,\)\(^6\)

Case presentation

A 47-year-old woman, who was a heavy smoker for more than 20 years, sought medical attention for moderately intense, continuous retrosternal chest pain of 3-month progression that was exacerbated by food intake, and for dysphagia with solid foods, and weight loss. Physical examination revealed tachycardia, dyspnea, cachexia, and bad teeth. Upper gastrointestinal endoscopy study identified the presence of 2 lesions with a tumor-like aspect in the middle and lower third of the esophagus. They exhibited an elevated level of annular and stenosing plaque growth, respectively (Fig. 1). Afterwards, transhiatal esophagectomy through left cervicotomy was performed. The pathology study reported well differentiated multiple squamous cell carcinoma with annular stenosing growth infiltrating up to the periesophageal fibroadipose tissue with moderately differentiated squamous cell carcinoma foci at the level of the serosa and periesophageal tissue, regional lymph node metastasis, and multifocal lymphatic and blood vascular invasion (Fig. 2). The patient had satisfactory postoperative progression.

This is a very unusual case in a young woman, a heavy smoker, presenting with multifocal squamous cell carcinoma. It contrasts with the habitual esophageal squamous cell carcinoma predominantly observed in men above 60 years of age. The particular circumstance of this patient could be linked to the possible coexistence of genetic instability of the p53 gene, added to the marked and prolonged smoking habit. Mutations in the p53 gene, together with the loss of heterozygosity, constitute early events of

**Figure 1** A) Tumor in the middle third, showing increased plaque growth. B) Tumor in the lower third showing elevated annular and stenosing growth.

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