future studies are needed to confirm whether omalizumab can impair glucose homeostasis.

Omalizumab is generally safe and well tolerated. In addition, this drug can help cut down OCS doses and lower the risk of OCS-induced irreversible side-effects, such as DM, in patients with severe asthma requiring OCS. However, consistent with our case, omalizumab can induce the unexpected complication of impaired glucose homeostasis, particularly in patients with DM. Therefore, we should closely monitor patients treated with omalizumab, including their glucose level.

Conflict of interest

All authors have no conflict of interest regarding to this report.

References


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2173-5115 © 2017 Sociedade Portuguesa de Pneumologia. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).
Following 6 months of **omalizumab**, improvements were observed in lung function (FEV1 68%) and the ACT changed from 21 to 25. Peripheral blood eosinophils reduced from 570/mm³ to 200/mm³, total IgE decreased from 2286 to 1683 IU/mL. Prednisolone was reduced to 10 mg/day.

After 12 months, ACT remained stable, total IgE was 1600 IU/mL, peripheral blood eosinophils decreased to 160/mm³, AF-specific IgE raised to 60.30 kU/L. Prednisolone was stopped. FEV1 (%) improved to 78, and a negative bronchodilator response maintained.

At 18 months of treatment, total IgE was 1950 U/mL, blood eosinophils decreased to 90/mm³, AF-specific IgE had not changed and Aspergillus precipitins were not detected. (Table 1).

There were no exacerbations or hospitalizations during the whole follow-up period.

There were no adverse events reported during treatment with **omalizumab**.

The authors present the case of a patient with severe asthma and steroid-dependent ABPA who was successfully weaned from systemic steroid therapy using **omalizumab**. Corticosteroid-sparing effect of **omalizumab** is a clinically relevant finding in this case, with a major improvement in asthma symptoms and a reduction in the inflammatory markers: blood eosinophilia and total serum IgE (Table 1). It is not known if the reduction in total serum IgE and eosinophilia is part of the natural course of ABPA or a marker for successful treatment with **omalizumab**. Lin et al., also suggest that serum IgE in patients treated with **omalizumab** is still an important marker of disease activity. Mummadj et al., showed that in patients with severe asthma treated with **omalizumab** serum IgE concentration may have clinically significant variability over time, affecting dosing.

The time that **omalizumab** treatment has to develop a response suggests that IgE antibodies might have an important role in airflow obstruction in ABPA. The serum free IgE are reduced in a dose-dependent manner within two hours of administration of **omalizumab**.

In our patient a significant FEV1 improvement was achieved, with only a mild bronchial obstruction remaining. Initial studies with **omalizumab** showed that, although in patients with asthma the exacerbation rate declines during treatment, the effects on lung function remain relatively small. More recently, some studies have shown that anti-IgE treatment may prevent or reverse, directly and/or indirectly, airway remodelling changes. The effects of **omalizumab** on preventing the initiation and further propagation of the allergic inflammation cascade may explain why in our patient the improvement in the FEV1 exists, despite the relative stability after 6 months of the total IgE.

In conclusion, **omalizumab** was effective in reducing exacerbations and the need for systemic corticosteroids as well as in improving asthma symptoms, in a patient with asthma and ABPA who had previously shown an unsatisfactory response to corticosteroids.

Treatment with **omalizumab** should be considered in asthmatic patients with ABPA who require prolonged use of oral steroids or have frequent relapses of the disease.

Further double-blind, randomised, placebo-controlled studies are necessary to clarify the role of anti-IgE treatment in ABPA.

### Conflicts of interest

The authors have no conflicts of interest to declare.

### References


| Table 1 Changes in laboratory and clinical findings after omalizumab treatment. |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|
| Eosinophils (/mm³)                | Before omalizumab | After 6 months  | After 12 months | After 18 months |
|                                  | 570             | 200             | 160             | 90              |
| Total IgE (IU/mL)                | 2674            | 1683            | 1600            | 1950            |
| AF-specific IgE (kU/L)           | 30.50           | –               | 60.30           | 60.30           |
| %FEV1.0                          | 58              | 68              | 78              | –               |
| ACT score                        | 17              | 25              | 25              | 25              |

ACT = Asthma Control Test; AF = Aspergillus fumigatus; FEV1.0 = forced expiratory volume in 1 second; Ig = immunoglobulin.
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Atypical pyoderma gangrenosum simulating pectoral abscess managed using negative pressure wound therapy

To the Editor,

Pyoderma gangrenosum (PG) is an ulcerative neutrophilic dermatosis of uncertain aetiology that is generally found in the extremities. It usually presents as painful skin ulcers.

We present a case of a patient with atypical PG that was satisfactorily treated using negative pressure wound therapy (NPWT) and immunosupresor therapy.

A 35-year-old female with inflammatory intestinal disease and a history of PG in lower extremities during pregnancy, was sent to our institution for pain and swelling at paraesternal level of 3 days of evolution without previous traumatism of the region. We performed a chest CT scan that revealed the presence of an erosive arthropathy of the left sternoclavicular joint; with a lesion of 30 mm in the thickness of the ipsilateral pectoral musculature related to an abscess (Fig. 1). We punctured the lesion under ultrasound control. This revealed purulent material, which we later drained, before wide debridement of the abscess and starting empirical antibiotic treatment.

Over the days following the drainage, the patient’s evolution was negative with a large increase in purulent exudate from the wound, fever and signs of sepsis with progression of the ulcer (Fig. 2A and B).

All the microbiological cultures were negative, so as we suspected PG, a tissue sample was sent for a histopathological study.

In view of the fact that the wound was clearly worsening, combined with the impossibility of controlling the exudate we decided to place a NPWT system, combined with intensive immunosupresor therapy and broad-spectrum antibiotics (Fig. 2C).

Seven days after starting treatment with NPWT the exudate was controlled and the ulcer had stabilised, with granulated tissue appearing at the back of the wound (Fig. 2D). Thus the NPWT system was removed to prevent the growth of ulcer secondary to pathergy that could cause the NPWT system.

Finally the histopathological study of the tissue sample demonstrated central necrosis and ulceration of the epidermis and dermis surrounded by an intense acute inflammatory cell infiltrate, with a peripheral mixed to chronic inflammatory cell infiltrate. We also looked for neutrophils and fibrin in superficial vessels without histologic evidence of vasculitis. All of these findings were PG-compatible features.

The patient’s evolution was finally successful, and complete healing of the ulcer achieved 4 months after onset of symptoms (Fig. 2E).

Pyoderma gangrenosum is a neutrophilic dermatosis, which was first described by Brocq in 1916 and later named by Brunsting in 1930, which is characterised by papules, pustules or vesicles in the skin that quickly transform into a painful ulcer with violet, raised and up to 20 cm diameter margins.

PG has an incidence of 0.3–1/100,000 and typically affects middle-aged patients. Four clinical variants of PG have been described: the ulcerative, pustular, bullous and vegetative type. In 80–90% of patients the lesions are reported in the lower limbs, though they may be seen in any part of the human topography, as was the case of our patient who had had a first episode of PG in lower limbs and a recurrence years later in the chest.1

The diagnosis of PG, as in our case, is usually reached by exclusion, although frequently the typical morphology of the injury will lead us to suspect its presence. There is no specific treatment and PG management consists of suppression of the inflammatory activity, treatment of the underlying disease, the promotion of ulcer healing and pain control.

Figure 1 CT chest scan showing a 3 cm diameter lump at the level of the left pectoral muscle (arrow).