

Anaphylactic shock due to omeprazole☆☆



Shock anafiláctico por omeprazol

Omeprazole is the first in a series of active ingredients that act by inhibiting the H/K ATPase pump (proton-pump inhibitor [PPI]). Its emergence revolutionised the treatment of peptic ulcers, gastroesophageal reflux and NSAID-induced gastropathy, so much so that it is currently the most prescribed active ingredient.

It is generally a well-tolerated medicine with adverse reactions to it being mild and normally reversible. The most common ones are digestive symptoms that occur in 1.5–3% of cases and effects on the central nervous system. Other adverse reactions that have been reported and are included on the summary of product characteristics are the inhibition of vitamin B12 absorption¹ and the appearance of hives.²

We present symptoms of anaphylaxis in a 58-year-old patient after taking an omeprazole tablet and the subsequent cross-reactivity testing with other PPIs.

A 58-year-old male, whose medical history showed a undocumented prior diagnosis of allergy to beta-lactams as a child, and whose surgical history showed a cholesteatoma procedure 18 years ago in his left ear and appendicitis with Meckel's diverticulum 10 years ago. The rest was not of interest.

The symptoms began with heartburn sensations and gastric discomfort 6 h after taking a 600 mg ibuprofen tablet for knee pain, for which he decides to take a 20 mg tablet of omeprazole. Ten minutes after taking it, he began to feel generally unwell, dizzy, sweaty and unsteady which forced him to lie down due to the worsening of his general condition. Upon physical examination, general swelling was observed on his face as well as dysarthria, with feelings of dyspnoea and decreased oxygen saturation measured with the CO-Oximeter, triggering a loss of consciousness. Due to the suspicion of anaphylactic shock, he was cared for at home by the emergency services. He was given 80 mg of methylprednisolone and intramuscular adrenaline as well as beclomethasone and salbutamol in a spacer. The oxygen saturation started to progressively improve and the patient regained consciousness after approximately 10 min. The patient was taken to the referral hospital where he remained under surveillance for 24 h, and he discharged asymptomatic and referred to the allergology department for testing.

The tests performed were as follows:

- Skin tests for drugs:
 - Prick test positive to omeprazole, pantoprazole, esomeprazole, rabeprazole and lansoprazole (Fig. 1).
 - Prick test negative to arylpropionics (ibuprofen), beta-lactams with re-exposure.



Figure 1 Allergy test carried out 2 months after the anaphylactic shock.

- Controlled exposure tests with oral drugs: negative to arylpropionics (ibuprofen) and amoxicillin with re-exposure.
- Skin tests for aeroallergens: negative to the common environmental aeroallergens (pollen, dust mites, fungus and dog and cat dander).
- Spirometry: FVC = 92% theoretical, FEV1 = 98% theoretical. FVC/FEV1 = 97, bronchodilator test negative.

After the examination of the described signs and symptoms and the tests performed in the allergology department, the patient was diagnosed with anaphylaxis due to hypersensitivity to omeprazole and PPIs.

The impact of hypersensitivity reactions to PPIs is increasing due to the growing use of these drugs, mainly for 2 reasons: their efficacy and the frequent use of non-prescription drugs.³

The skin tests conducted showed a type of immediate allergic reaction to the 5 PPIs that are marketed in Spain. The negative control results also exclude the possibility of an irritant reaction.

This is not surprising given that, upon carrying out a detailed analysis of the clinical cases reported in the literature, different papers are observed where the different reactivity patterns amongst the PPIs are shown.^{4,5}

In order to develop a hypersensitivity symptom, the patient should have previously been in contact with that substance. However, it was consciously the first time that he took an omeprazole tablet and so his history was studied in detail where it was actually affirmed that during his last surgical procedure 10 years ago due to acute appendicular symptoms, this drug was used intravenously.

Facing the presence of anaphylaxis symptoms, the possibility of the patient having previously taken the drug must be taken into account, even if it is not reflected in his medical record. It must also be taken into account that not all anaphylaxis symptoms are caused by NSAIDs.⁶

For this and other reasons, we believe that it would be highly advisable for the patient's medical record to include all of the information related to his pharmacotherapeutic profile and the possible adverse reactions that they may

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have had throughout their history by the different health services.⁶ Equally, we must go as far as possible to make the public aware that they should avoid self-medication, even with medicines that are popularly considered to be “safe drugs”, and that we should not let our guard down in the event of adverse effects because, as we have seen in this case, they can be very serious.

Conflicts of interest

There is no financial support for this project nor conflicts of interests by any of those that took part in it.

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Anisakis and colonic polyp, a rare association[☆]



Anisakis y pólipo en colon, una asociación infrecuente

Anisakiasis is a parasitic infection caused by ingesting sea fish infected by nematode larvae. It was first diagnosed in Holland in 1960.¹ Japan is currently the country with the highest incidence. It most commonly affects the stomach and small intestine, and rarely the colon. Clinical diagnosis is very difficult due to its non-specific symptoms.

In the literature, there are only 4 cases of anisakiasis linked to bowel cancer.^{2–5}

A 73-year-old male undergoing a colonoscopy for polyp monitoring, where a flat polyp of around 4 cm was identified in the caecum with a lateral extension LST-G 0-IIa + 0-IIb according to the Paris Classification, affecting two consecutive folds not susceptible to endoscopic resection, from which biopsies were taken (Fig. 1). The pathology study reported fragments of tubulovillous adenoma from the large intestine with high grade epithelial dysplasia/adenocarcinoma *in situ*, where a Haggitt level could not be established as there were several fragments. In preoperative tests, the patient's blood work showed mild eosinophilia

and no significant tumour disease was observed in the imaging tests.

The patient underwent a laparoscopic right hemicolectomy and no macroscopic changes were observed during the procedure and there were no postoperative incidents.

In the pathology study of the colon, the raised, oedematous mucosa in the area where the adenoma biopsies were carried out were macroscopically observed in the caecum. Microscopically, a predominantly transmural eosinophilic inflammatory infiltrate area was observed with microabscess formation, in connection with *Anisakis* larva, located in the muscle layer of the caecum, with low grade dysplasia in the underlying mucosa (Fig. 2), with no significant lesions in 33 isolated lymph nodes.

Anisakis involvement is less common in distal locations of the GI tract and its presence in the colon is rare.^{6,7} Some 75 cases of colorectal anisakiasis have been described, the majority of which were in the ascending colon.^{2,8}

The acute forms of anisakiasis can present as acute abdominal pain or anaphylactic reaction after consuming products with *Anisakis* in them. Its diagnosis is based on medical history relating the recent consumption of fish and it can be confirmed with the presence of specific antibodies for *Anisakis*, as well as direct observation *via* endoscopy.

On the other hand, the chronic form is more difficult to diagnose given that the antibody titres can decrease and it could be more difficult to see the larva on the endoscopy because it could enter into the mucosa. The differential diagnosis includes appendicitis, Crohn's disease, cancer, intestinal tuberculosis..., in some cases surgical treatment is needed for its diagnosis. In early stages, it can be

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