

KOUNIS SYNDROME SECONDARY TO METAMIZOLE: A CASE REPORT

C. ORTÍ JUAN¹, R. AGUILAR SALMERON¹, C. ESCOBAR BOLAÑOS², X. LARREA URTARAN¹, M. BRUGUERA TEIXIDOR¹, C. SUBIRANA BATLLE¹, R. SACREST GÜELL¹.

¹HOSPITAL UNIVERSITARI DR. JOSEP TRUETA, PHARMACY DEPARTMENT, GIRONA, SPAIN.

²HOSPITAL UNIVERSITARI DR. JOSEP TRUETA, ALLERGOLOGY DEPARTMENT, GIRONA, SPAIN.

BACKGROUND AND IMPORTANCE



Kounis syndrome (KS) is an acute coronary syndrome (ACS) triggered by mast cell and platelet activation in the context of anaphylactic reactions.

AIM AND OBJECTIVES

To determine the contribution of pharmacist in allergic reactions.

MATERIAL AND METHODS

A 75-year-old patient was admitted to a regional hospital for scheduled surgery for anterior rectus dehiscence. During surgery, coinciding with the administration of metamizole, he presented hypotension, tachycardia and decreased oxygen saturation, so the infusion of this drug was immediately withdrawn. Despite administration of IV hydrocortisone, hypotension and desaturation persist. The patient began to fibrillate and went into cardiorespiratory arrest and cardiopulmonary resuscitation manoeuvres were started. The patient required the administration of adrenaline, amiodarone, noradrenaline, atropine and dobutamine.

RESULTS

He was transferred to our centre for intraoperative anaphylactic shock with troponins increasing from 41 ng/L to 3144 ng/L in the following determination and elevation of serum tryptase concentration to 15.4 µg/L. Allergy Department performs diagnostic skin tests for latex and metamizole allergy.



The skin tests were performed according to international guidelines and included 15-minute readings for immediate reactions.

Pharmacy Department performed the preparation for skin tests solutions for metamizole, PRICK (400 mg/ml) and intradermoreaction (IDR1 4 mg/ml and IDR2 10 mg/ml) in the horizontal laminar flow cabinet.



The skin test was negative for latex and positive in IDR 2 for metamizole. [Pyrazolone allergy](#) was confirmed and was probably the cause of Kounis syndrome.

CONCLUSION AND RELEVANCE

Drug allergies can sometimes cause severe reactions such as anaphylactic reactions or Kounis syndrome. The prognosis of these reactions depends on a correct and immediate diagnosis and rapid treatment. Suspected allergy should always be confirmed by allergy testing and the Pharmacy Department can ensure correct preparation.

REFERENCES

1. Trautmann A, Brockow K, Stoevesandt J. Metamizole-induced reactions as a paradigm of drug hypersensitivity: Non-allergic reactions, anaphylaxis, and delayed-type allergy. *Clin Exp Allergy*. 2020 Sep;50(9):1103-1106.
2. Lameiras C, Corte-Real A, Órfão A, Lopes MM, Dória MDC. Metamizole-Induced Type I Kounis Syndrome. *Eur J Case Rep Intern Med*. 2021 Feb 8;8(3):002249.
3. Bardají A, Cediél G, Carrasquer A, Castro R, Sánchez R, Bosqué C. *Rev Esp Cardiol*. 2015; 68(6):469–476.

Section 4: Clinical Pharmacy Services

Abstract number: 4CPS-053

Contact: cortij.girona.ics@gencat.cat

