Acute Coronary Syndrome due to Diclofenac-Induced Anaphylaxis: Type 1 Kounis Syndrome

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ABSTRACT

Kounis syndrome is a potentially life-threatening medical emergency with both acute coronary syndrome and a severe allergic reaction which can occur even in patients with angiographically normal coronary arteries. In this report, we present a patient who developed acute coronary syndrome (type 1 Kounis syndrome) after diclofenac sodium intake.

Key Words: Kounis syndrome, acute coronary syndrome, diclofenac, anaphylaxis.

INTRODUCTION

Kounis syndrome is a potentially life-threatening medical emergency with both acute coronary syndrome and a severe allergic reaction which can occur even in patients with angiographically normal coronary arteries. This complication should be diagnosed early and proper treatment should be initiated quickly. There are several causes underlying this syndrome including some drugs, latex, foods, as well as various conditions and environmental exposures (1).

In this report, we present a patient who developed acute coronary syndrome (type 1 Kounis syndrome) after diclofenac sodium intake.

CASE REPORT

A non-steroidal antiinflammatory drug diclofenac sodium was initiated by orthopedics clinic to 51 year-old male patient for his knee pain. After 45 minutes of ingestion of 100 mg diclofenac sodium lacrimation in his eyes, widespread pruritus in his body and severe chest pain had started and he was presented to our emergency department. On admission physical examination was normal except widespread erythematous rashes. His vital signs were stable including blood pressure 105/66 mmHg and heart rate 96 bpm. In his medical history there was not a history of any allergic disease and except being an ex-smoker he was devoid of any cardiovascular risk factor.
In our patient, according to the development of allergic and cardiac symptoms after drug administration, dramatic response to antihistaminic and corticosteroid treatment and according to the absence of coronary artery stenosis we thought that diclofenac was the triggering factor of an allergic reaction for development of this clinical picture.

In 1991 Kounis and Zavras described the syndrome of allergic angina and allergic myocardial infarction, currently known as Kounis syndrome (2). This allergic reaction is known to be caused by inflammatory mediators such as histamine, chemokines and cytokines. There are several causes underlying this syndrome including some drugs, latex, foods, as well as various conditions and environmental exposures (1). Nonsteroidal anti-inflammatory drugs are frequently used in daily clinical practice and they are the second most commonly seen class of medications causing anaphylaxis (3). Because NSAIDs are among the most widely used drugs, their possible side effects should be known by all physicians. The systemic anaphylactic reaction caused by inflammatory mediators released during the activation process should be controlled early in the management of these patients. A previous case report emphasized that a 74-year-old woman had felt chest pain and her ECG recording showed ST-elevation in inferior derivations after intravenous administration of diclofenac at emergency department (4). However, this patient had undergone successful coronary angioplasty with implantation of bare-metal stents two months ago (type 2 Kounis syndrome). In our case we established a rapid diagnosis and the appropriate antiallergic treatment was started accordingly. The coronary angiogram showed normal coronary arteries without any obstruction. The result was excellent with the full recovery of our patient.

CONCLUSION

Kounis syndrome should be considered in patients without any risk factor for coronary artery disease when they develop acute coronary syndrome (especially inferior myocardial ST segment elevation) after any drug intake. These patients should be treated with steroids, antihistamines, acetylsalicylic acid and enoxaparine before transfer to the coronary angiography laboratory (5).

Conflict of interest

No conflict of interest was declared by the authors.

REFERENCES