## STUDIUM PRZYPADKU / CLINICAL VIGNETTE

## Acute dysphagia after myocardial infarction: an unusual complication of anticoagulation therapy

Ostra dysfagia po zawale serca: nietypowe powikłanie leczenia antykoagulacyjnego

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Antiplatelet medications such as aspirin, clopidogrel or prasugrel are commonly used in patients with myocardial infarction (MI) and stent implantation. Additionally, thrombolytic therapy is recommended for patients in whom a coronary intervention cannot be performed in a timely manner. Both classes of drugs put patients at risk for major bleeding complications. However, also unusual bleeding complications can lead to serious complications.

A 55-year-old male contacted the emergency medical service with acute onset of chest pain beginning 1.5 h before. The ECG showed typical ST-segment elevations (Fig. 1). An inferior MI was diagnosed, and a pre-hospital thrombolytic therapy with 10,000 units of tenecteplase was administered.

On admission to our hospital, the chest pain was still present but reduced. The ECG showed persistent ST-segment elevations and a rescue percutaneous coronary intervention was performed. An additional 6,000 IE of heparin were given for the

intervention. An acute occlusion of the right coronary artery was successfully reopened and a drug-eluting stent (tacrolimus-eluting-stent, TAXUS®, Boston Scientific) was placed (Fig. 2). In the clinical course, cardiac ultrasound showed a moderate impairment of left ventricular function (LVEF 40%). The patient was treated with aspirin 100 mg/d and prasugrel 10 mg/d.

Two days later, the patient developed a progressively sore throat and reported new-onset dysphagia. Within the next few hours, a progressive swelling of the left cervical region occurred. Emergency computed tomography of the neck showed a massive left sided tumour, consistent with a large bleeding into a thyroidal cyst. The diameters of the haematoma were  $13 \times 7 \times 6$  cm, with displacement and compression of trachea to 6 mm (Fig. 3). To secure the airways, the patient was endotracheally intubated without problems. An immediate left hemithyreoidectomy with decompression of the haematoma was performed. The patient recovered quickly after the operation. Histological findings showed no evidence of malignancy.

Spontaneous haemorrhage into a thyroid cyst is a rare condition. When causing airway obstruction, this life-threatening situation requires immediate airway protection before complete obstruction occurs. In the literature, some cases of retropharyngeal or thyreoideal haematoma have been reported as complications of medical manoeuvres such as intubation or thyroid puncture, or as a complication of chronic anticoagulation therapy with warfarin or marcumar.

To the best of our knowledge, this is the first description of a spontaneous haemorrhage into a thyroid cyst under aspirin and prasugrel. Prasugrel is known to lead to more pronounced platelet inhibition than clopidogrel, resulting in a four to five times longer bleeding time and a faster onset of action.

Clearly, the faster and more effective platelet inhibition obtained by prasugrel may lead to an increased risk of major and even atypical bleeding events after previous fibrinolytic therapy.



Figure 1. ECG with ST-segment elevations in leads II, III, and aVF





**Figure 2.** Right coronary artery with occlusion in segment 2 (**A**) and after successful stent implantation (**B**)





**Figure 3.** Computed tomography scan of neck (**A**) and chest (**B**) with massive intrathyroideal haematoma with extension of  $6 \times 7 \times 13$  cm (white arrows) causing compression of trachea and oesophagus (black arrows)

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