Case report

AOD haemorrhagic event with tubo-ovarian complex; a rare case report

ABSTRACT

The incidence of serious bleeding associated with rivaroxaban is comparable to that of vitamin K antagonists (VKAs).
In this case study, we present a very rare bleeding event associated with oral anticoagulants (OACs), involving a tuboovarian complex, which was revealed by atrial tachycardia fibrillation in a 47-year-old woman.
It is of the utmost importance to provide patients with therapeutic education and to assess the risk of bleeding before prescribing an AOD. This is the most effective way of preventing bleeding complications.

Keywords: Tuboovarian complex, AOD haemorrhagic event, atrial tachy-fibrillation; rare case report.

1. INTRODUCTION

Direct oral anticoagulants (DAAs) have recently become available for use in a number of clinical contexts, including the treatment of non-valvular atrial fibrillation (AF).

As is the case with all antithrombotic agents, direct oral anticoagulants are associated with an increased risk of bleeding complications. The pivotal trials that led to the marketing authorisation of these drugs demonstrated that the risk of serious haemorrhage persisted with AODs.

This case study presents a particularly rare haemorrhagic event associated with AODs, occurring in a 47-year-old woman just four months after initiating treatment.

2. CASE PRESENTATION

This case study presents the case of a 47-year-old patient, married with two children, who presented with a history of miscarriage. The patient exhibited a number of cardiovascular risk factors, including: The patient is menopausal, has been diagnosed with type 2 diabetes for 16 years and is currently discontinuing treatment, and has been exposed to passive smoking.

The patient's medical history includes a four-month-old hospitalization in the neurology department for a balance disorder, which revealed a vertebro-basilar ischemic

cerebrovascular accident in the context of atrial fibrillation. She was initiated on AOD rivaroxaban 20 mg daily and a small dose of beta-blocker 2.5 mg daily.

The patient's current history of the disease dates back two days, during which time she had been experiencing a sensation of palpitation at rest without any other associated signs. This prompted her to seek the advice of an emergency physician, who performed an ECG. This revealed atrial tachycardia-fibrillation at 168 bpm without any other associated signs. (Figure 1).

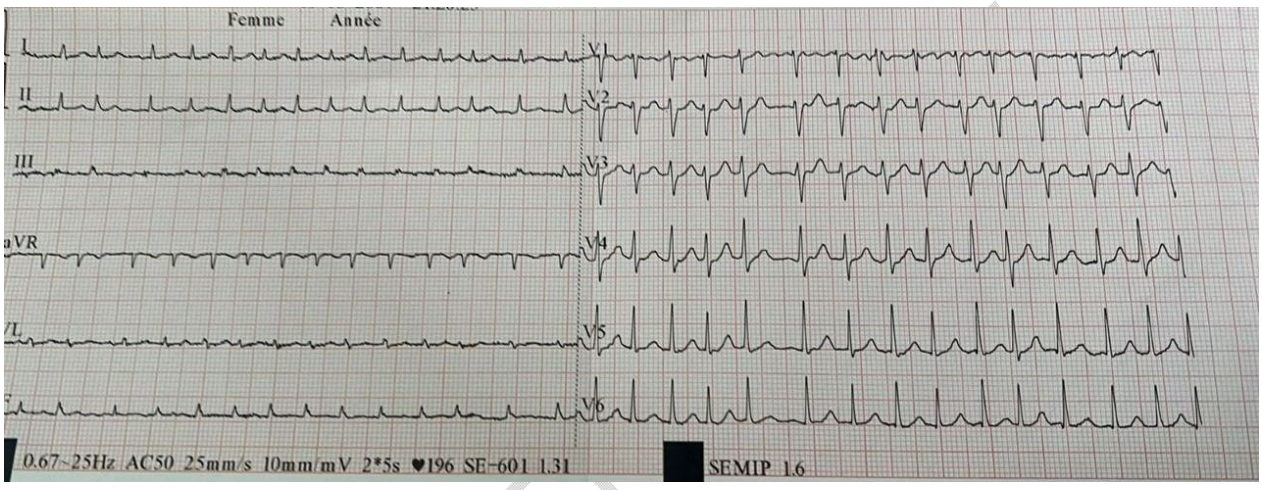

Figure 1 : The electrocardiogram (ECG) demonstrates atrial tachycardia at a rate of 168 beats per minute (bpm).

Upon clinical examination, the patient was observed to be conscious, pale in complexion, exhibiting respiratory rate of 30 cycles per minute, with conjunctivae displaying slight discolouration, and experiencing paroxysmal pain.

The remainder of the clinical examination yielded no noteworthy findings.

A biological work-up was ordered during the investigation of the tachycardia-induced fibrillation, which revealed the presence of normocytic normochromic anaemia at a haemoglobin concentration of 6.7 g/dL. Additionally, a biological inflammatory syndrome with a CRP concentration of 50 mg/L was observed, along with a blood pressure of 60 mm at H1 and 80 at H2. Furthermore, the patient exhibited a hyperleukocytosis of 18,000, with a predominance of neutrophils at 11,000 cells/mm³.

Given the patient's intolerance of the anaemia, a staggered transfusion of two packed red blood cells was performed, resulting in a post-transfusion haemoglobin of 10 g/dL.

The ECG obtained post-transfusion demonstrated atrial fibrillation at a heart rate of 100 beats per minute (Figure 2).

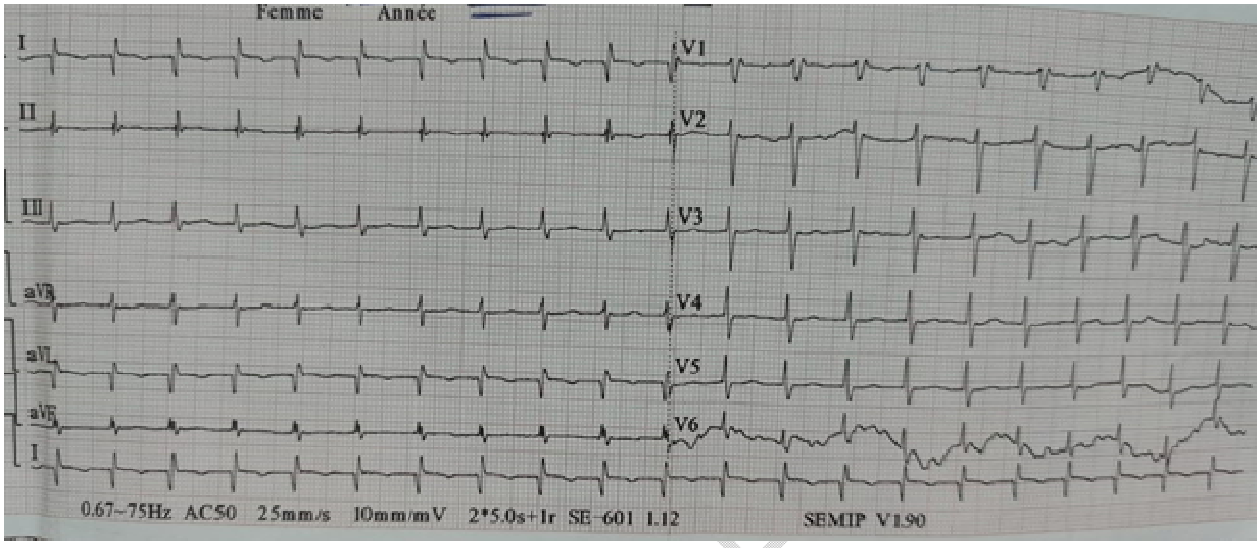

Figure 2 : The electrocardiogram (ECG) demonstrates atrial tachycardia at a rate of 100 beats per minute (bpm).

The patient was asked to describe their symptoms in greater detail, which revealed that they had been experiencing episodes of moderate to heavy menometrorrhagia for four months. These episodes were complicated by the onset of fever and palpitations three days ago.

An abdominopelvic ultrasound was performed, which revealed a roughly rounded, fairly well-limited, hypoechoic, heterogeneous formation in the anterior pelvis, with anechoic areas, measuring approximately 5.4x5.3 cm. The uterus was of normal size, with regular contours and a fine, free endocavitary line. Additionally, a smallpelvic effusion wasobserved (Figure 3).

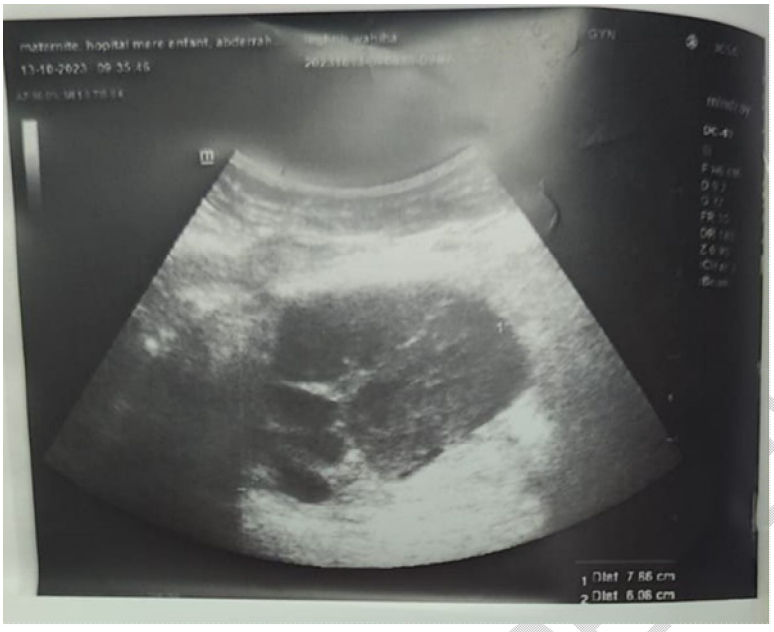

Figure 3: The ultrasound image demonstrates the presence of an organic ovarian cyst with a diameter of 5.4 cm and a depth of 5.3 cm.

A gynaecological opinion was sought and obtained, confirming the diagnosis of a tuboovarian complex consisting of a superinfected haemorrhagic ovarian cyst.

Trans-thoracic echocardiography demonstrated optimal biventricular function with an ejection fraction of 60% and left atrial dilation with an echo-free OG area of 23 cm^2.

In light of these findings, the diagnosis of a haemorrhagic event with AODs, such as a tuboovarian complex, was accepted.

The patient was initiated on dual antibiotic therapy comprising ceftriaxone 2 g per day and ciprofloxacin 500 mg per day, in addition to a transfusion of packed red blood cells.

It was decided that treatment with AOD should be discontinued and replaced with a curative dose of LMWH.

The clinical course was favourable, with a heart rate of 89 beats per minute, a respiratory rate of 16 cycles per minute, and normal-coloured conjunctivae.

Biological assessment at the seven-day mark revealed a CRP reading of 2 mg/L and a WBC count of 7,000 elements per mm^3. Following stabilisation, the patient was transferred to the gynaecology department for treatment of the cyst, prior to resuming AOD therapy.

3. DISCUSSION

Rivaroxaban is a highly selective, direct factor Xa inhibitor with oral bioavailability.

Inhibition of factor Xa disrupts the intrinsic and extrinsic pathways of the blood coagulation cascade, impeding thrombin formation and the development of thrombi.

The incidence of serious bleeding associated with rivaroxaban is comparable to that of vitamin K antagonists (VKAs) in both the ROCKET-AF trial and the EINSTEIN-DVT trial. The ROCKET-AF trial was conducted to assess the efficacy of rivaroxaban in preventing stroke and systemic embolism in patients with atrial fibrillation. The EINSTEIN-DVT trial was designed to evaluate the effectiveness of rivaroxaban in preventing the recurrence of deep vein thrombosis.

In the EINSTEIN-PE study, rivaroxaban was associated with a reduction in serious bleeding in comparison to VKAs for the prevention of recurrence after pulmonary embolism.

In clinical practice, it is essential to differentiate between serious and non-severe bleeding when managing patients on anticoagulant therapy who experience a bleeding event. Serious bleeding requires urgent and specific treatment, whereas non-severe bleeding is initially managed symptomatically.

A haemorrhagic ovarian cyst (HOC) is defined as an abdominal mass formed by the bleeding into a follicular ovarian cyst or corpus luteum cyst. The clinical signs of this condition are variable, ranging from asymptomatic cases to cases where it gives rise to complications requiring surgical intervention, as in the present case.

The case presented with a dual pathological component, namely a cystic infection with haemorrhage.

Infection is typically managed with a course of broad-spectrum antibiotics. Approximately 70% of cases can be successfully treated with antibiotics alone, without the need for surgical intervention.

4. CONCLUSION

Our case presented a very rare AOD haemorrhagic event involving a tuboovarian complex revealed by atrial tachy-fibrillation in a 47-year-old woman.
This requires rapid and appropriate management to save the patient's vital prognosis.
Therapeutic education and assessment of the risk of haemorrhage before prescribing an AOD are two fundamental steps in preventing haemorrhagic complications.

Declarations :

Consent for publication :

Written informed consent was obtained from the patients for publication of this case report and any accompanying images.

Availability of data and material :

All data generated or analysed during this study are included in this published article.

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