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# CASE REPORT

# Abdominal pain in the patient with antiphospholipid antibody syndrome: A case report

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### Abstract

Antiphospholipid antibody syndrome (APS) is known to cause hypercoagulability, affecting a wide range of vessels, systematically. A 56-year-old woman was referred to our center with severe epigastric pain, with the history of APS. She was treated with packed cells, fresh frozen plasma and anticoagulation therapies.

### **KEYWORDS**

abdominal pain, antiphospholipid antibody syndrome, laparotomy

#### 1 INTRODUCTION

Antiphospholipid antibody syndrome (APS) is characterized by the presence of antiphospholipid autoantibodies such as anticardiolipin, antiß2glycoprotein 1, and lupus antibodies.<sup>1</sup> Clinical features of APS are seen as arterial thrombosis and small vessel obstruction, thrombocytopenia, atherosclerosis and valvular lesions.<sup>2</sup> Pregnancy and skin-related complications are also reported in patients with APS.<sup>3</sup> In the absence of any other autoimmune disease such as rheumatoid arthritis and systemic lupus erythematous, APS is classified as primary APS whereas, secondary otherwise.<sup>4</sup> Diagnosis of APS is usually supported by the laboratory tests of lupus anticoagulants and IgM or IgG against anticardiolipin reported in moderate to high titer. However, occlusion of systemic blood vessels can be seen using Doppler ultrasound and computed tomography scan (CT scan).<sup>5</sup>

#### **CASE PRESENTATION** 2

A 56-year-old woman was referred to our center, with a complaint of abdominal pain and constipation, for a week. From the time of onset, the pain was categorized to be severe, not colic and was localized to the epigastric region only. The patient was alert and ill, while she has had nausea and anorexia, but was not been accompanied by vomiting. Her vital signs were as follows: BP: 85/50, PR: 130, T: 37.2, and RR: 18. Her head, neck, and chest (heart and lung) were normal, and abdomen was fatty and without scarlet and reduced intestinal sounds. She had generalized tenderness with maximum pain intensity in epigastric regions, where her organs were normal. Her medical and corresponding drug history was as follows: antiphospholipid antibody syndrome, DVT, a history of two abortions, and type II diabetes.

Her drug history included: prednisolone tablets, 5 mg: once a day; methotrexate: three pounds a week; hydroxychloroquine tablet: 3 days a week; and warfarin tablets: daily half a pill and insulin.

For further examination, her cardiac activity was monitored, and serum therapy was given to the patient. She was also provided a nasogastric tube, Foley catheter for urinary drainage along with hydrocortisone and antibiotics.

After about 60 minutes, her vitals were as follows: BP: 100/60 and PR: 120.

The result of the preliminary tests showed WBC: 4200, Hb: 7.7, PLT: 80 000, and INR: 4.7 and other tests: normal. Ultrasound from the patient's bedside showed free fluid in the abdomen. Following these tests, the therapeutic intervention was continued as follows: serum, wo packed cell (PC) units, and fresh frozen plasma (FFP) units. Meanwhile, the patient was prepared for laparotomy where, during the

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**FIGURE 1** Cystic lesion in the vicinity of the large stomach flexion

surgery, her sugar levels kept under control, control, stressdose cortisol was provided, and she received 5 units of PC and 4 units of FFP.

During the laparotomy, about 3 L of blood and clot were removed from the abdomen. Following this, a cystic lesion was observed in the vicinity of the large stomach flexion that bled due to the invasion of the gastroepyloid vessels (Figure 1). After controlling the bleeding, the lesion was fully resected, and samples were examined for pathology (Figure 2).

# 2.1 | After surgery

Postoperatively, complete control of the bleeding was achieved with sustained vital signs. However, given the state of preoperative hemorrhagic shock, the patient was kept in ICU until satisfactory recovery was achieved. She also received 5 units of PC and 4 units of FFP, and the vital signs were maintained stable.

Despite there was no recurrence of hemorrhage, she presented pancytopenia perhaps due to the underlying disease (antiphospholipid antibody syndrome). She was hyper-coagulopathic, due to thrombocytopenia and hemorrhagic shock (cause of referral); therefore, anticoagulant administration was not possible.

After 24 hours and ensuring the stability of vital signs and the absence of Ileus, the patient oral feed was resumed. The postoperative examination for pancytopenia was as follows: WBC: 1500 (PMN: 60%), Hb: 11, PLT: 50 000, INR: 1.7, and K: 3.2. Granulocyte colony-stimulating factor (GCSF) therapy was prescribed to the patients after which, her platelets and WBCs showed improvement. The patient's general condition improved, she tolerated the diet, and the bleeding was controlled. Her hemoglobin level did not drop, and therefore, she was transferred to the general ward. The continuation of treatment was as follows: hydroxychloroquine, prednisolone: half a tablet twice a day, methotrexate was discontinued for 2 weeks, and folic acid and GCSF for 3 days.

Laboratory results showed: platelet <100 000, potassium <3.5, and INR: 1.6. She was administered anticoagulant prophylaxis.

Nine days after the operation, the patient suffered from shortness of breath and tachypnea and a feeling of pressure in the chest. According to the history of the disease, the first diagnosis was a pulmonary embolism, for which anticoagulant therapy was immediately initiated and the patient was transferred to ICU. Her laboratory findings revealed: a decrease in platelets 20 000 and an increase in INR > 3 while ECG was normal. Anticoagulant therapy was restarted. Nonetheless, she went under respiratory distress and despite intubation, she expired.

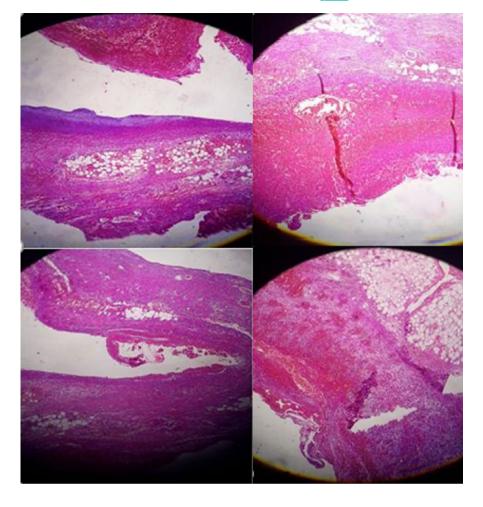
## **3** | **DISCUSSION**

Management of APS has faced numerous amount of challenges within the past few years.<sup>6</sup> Commonly, anticoagulation therapy such as by warfarin, heparin, and low-dose aspirin is prescribed for the patients <sup>7,8</sup>; nonetheless, severe complications like those of cardiovascular, pulmonary, renal, and neurological system can be inevitable in extreme cases.<sup>2,9,10</sup>

In a recent case report of a 58-year-old white woman by Sharma et al,<sup>4</sup> abdominal wall ulcers were reported in the patients with the presentation of secondary APS due to systemic lupus erythematous. One of the rare complications of APS is the abdominal pain of different intensities as a result of visceral blood vessels-related pathologies. Furthermore, Saponjski et al<sup>5</sup> reported that patients presenting primary and secondary APS with abdominal pain are likely to have great incidence lesion in inferior and superior mesenteric arteries, respectively, with up to 70% of diameter stenosis, with those of soft tissue plaques, in visceral blood vessels that were detected using multidetector computed tomography angiography. Primary and secondary APS can be the cause behind unknown abdominal pain. A review of abdominal manifestations of APS has depicted that several abdominal viscera are at the risk of complications such as liver, spleen, intestine, and pancreas.<sup>11,12</sup> Most of these events are as a result of hemodynamic alteration causing ischemia, infraction, stenosis, and thrombosis.<sup>13</sup> Similarly, through their case report, Luma et al<sup>14</sup> suggest that patients presenting multi-vessel thrombosis including that of mesenteric should be diagnosed for APS and anticoagulant therapies to be under closed supervision of the clinicians along with the patients' education.<sup>15</sup>

In this case report, women with the history of primary APS presented severe abdominal pain near the epigastric region. Free fluid and lesions were detected in her abdomen which received surgical intervention. However, due to unstable hemodynamic parameters and chances of other respiratory and

**FIGURE 2** Pathology of the lesion removed from the abdomen



cardiopulmonary comorbidities, the patient did not survive the disease and its complications.

# 4 | CONCLUSION

APS is chiefly associated with cardiovascular complications and hemodynamic alterations. Abdominal complications are not very common; however, occlusion of visceral blood vessels and lesions can lead to the severe outcomes. Precise monitoring of all the possible commodities in patients suffering from APS and timely intervention is strictly recommended, for long-term survival.

# **CONFLICT OF INTEREST**

The authors deny any conflict of interest in any terms or by any means during the study. All the fees provided by research center fund and deployed accordingly.

### AUTHOR CONTRIBUTIONS

Dr Haleh Pak: conceptualized and designed the study, drafted the initial manuscript, and reviewed and revised the

manuscript; Dr Armin Tajik: designed the data collection instruments, collected data, carried out the initial analyses, and reviewed and revised the manuscript; Dr Ali Soltanian: coordinated and supervised data collection, and critically reviewed the manuscript for important intellectual content.

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