Case report

Antiphospholipid Syndrome and Impaired Wound Healing After CABG

ABSTRACT

This case highlights a 47-year-old patient with antiphospholipid syndrome and a prior stroke who underwent CABG for triple vessel disease. Despite a 7-day hospital stay, delayed wound healing at the intervention site ensued, compounded by a bacterial infection. Treatment involved betadine wound care and dermatologist follow-up. The patient's medications included Acetylsalicylic acid, atorvastatin, bisoprolol, Valsartan, and warfarin. This case underscores the significance of recognizing poor wound healing in antiphospholipid syndrome patients' post-surgery, necessitating vigilant management to mitigate complications and preserve quality of life.

Keywords: Antiphospholipid syndrome, Wound healing, infection, CABG, Interventional cardiology

1. INTRODUCTION

Antiphospholipid syndrome (APS) is a systematic autoimmune syndrome where thrombosis occurs due to the presence of Antiphospholipid antibodies (aPLS) [1]. Antiphospholipid syndrome complicates up to one-third of the cases which affects other internal organs in the body [2]. Prevalence is 40 to 50 cases per 100,000 cases with an annual incidence of 1 to 2 per 100,00 [3]. Thrombosis is the most common clinical manifestation and skin lesions occur in 30% of the population skin ulcers are seen after livedo reticularis as skin manifestation [4]. We present you a case patient with antiphospholipid syndrome post coronary artery bypass graft (CABG), who has done recurrent visits to the hospital due to poor wound healing and bacterial infection. It is essential to have wound care management for a patient with APS who has gone through any sort of intervention.

2. CASE REPORT

A 47-year-old who was previously diagnosed with antiphospholipid syndrome, and a history of prior stroke, had a non-STEMI coronary angiogram which revealed triple vessel diseases, and was referred for CABG. the patient remained in the hospital for 7 days and was discharged home. However, the patient experienced there was delayed wound healing at the intervention site. With a superimposed bacterial infection, the patient was treated with wound care with betadine and regular follow-up with Dermatologist. Patient medications include Acetylsalicylic acid, atorvastatin, bisoprolol, Valsartan, and warfarin. As we present the case, the patient was well protected from thrombotic events and due to poor wound healing the patient got a bacterial infection which affected his quality of life.

3. DISCUSSION

Antiphospholipid syndrome (APS) is a multi-organ and multi-system thrombo-inflammatory condition that leads to complications of systemic lupus erythematosus. Thrombosis occurs due to circulating antiphospholipid antibodies in the vessels [5]. In APS, antibodies target clot-regulating proteins like anti-β2-glycoprotein I, binding to cell membrane phospholipids, disrupting their anti-clotting function. This leads to excessive clot formation, contributing to the syndrome's pathology [6]. Arteriole thrombosis in APS causes venous swelling, resulting in livedo reticularis skin appearance. It may also

lead to purpura, splinter hemorrhages, livedoid vasculopathy, Raynaud phenomenon, anetoderma-like lesions, and various ulcers, including pyoderma gangrenosum-type ulcers, nail fold ulcers, digital ischemia, or superficial thrombophlebitis [6]. Skin necrosis can occur as part of the progression of the disease, or if disorders occur during pregnancy, and there will be fetal demise. If the thrombosis occurs in the venules the result is DVT with leg swelling, tachypnea due to pulmonary embolism, and ascites.
When the patient's wounds are not healed or not healing properly, APS should be given more priority in the workup. There are multiple cases in which wound care management is compulsory for APS patients [7]. Where cleaning the site with 0.9% sodium chloride solution and applying hydrogel dressing. If there is a large wound then skin grafting is an option after treating APS with anticoagulation. Primary wound care management is compulsory for patients with APS and healing of the skin would be delayed regardless of the etiology such as trauma, spider bite, or surgical intervention site as we have mentioned earlier.

4. CONCLUSION

In conclusion, the presented case report highlights the critical importance of proactive wound management in patients with Anti-Phospholipid Syndrome (APS) following any interventional procedures. APS, characterized by thrombotic events and vascular complications, poses a heightened risk for complications during invasive procedures. The case underscores the need for a multidisciplinary approach, involving rheumatologists, hematologists, and surgeons, to ensure comprehensive care for these patients.

Wound management in APS patients is crucial due to their heightened thrombotic risk and impaired healing. Vigilant monitoring, prompt infection detection, and collaboration between healthcare professionals are essential for post-procedural care. This case report emphasizes a holistic approach, including risk assessment, careful procedures, and diligent postoperative care, to minimize complications in APS patients undergoing interventions. By prioritizing wound care, healthcare providers can improve outcomes and enhance the quality of life for APS patients undergoing procedures.

CONSENT

Consent was taken from the patient for the publication of the case report.

ETHICAL APPROVAL

Not Applicable

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