



RIVAROXABAN: IN TREATMENT OF ATROPHIE BLANCHIE

¹Dr. Moizz Tahir and ²*Dr. Amal Ejaz

¹Associate Prof of Dermatology CMH Multan.

²FCPS Resident Dermatology CMH Multan.

*Corresponding Author: Dr. Amal Ejaz
FCPS Resident Dermatology CMH Multan.

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INTRODUCTION

Atrophie Blanchie is an ulcerative disease of the lower limb which begin as painful purpuric papules, progressing into angular ulcers and end as ivory white atrophic scars. It is commonly seen in young to middle aged females. It is associated with prothrombotic conditions and poor healing. It is believed to occur as a result of blood vessel occlusion by fibrin thrombi leading to skin ulceration. Mainstay of treatment focuses on anticoagulants and wound care.

CASE REPORT

A 40 year old female was referred in dermatology outpatient department for a non-healing painful ulcer on left toe for 18 months. Ulcer was progressively increasing in size and was associated with excruciating pain and pins and needles sensation in toe. She denied local trauma. She had numerous antibiotic courses over past few months along with aspirin but no relief. Her history for strokes, miscarriages, joint pains, deep venous thrombosis was noncontributory. General physical examination revealed middle aged female BP 130/90mmhg, Temp 98F, respiratory rate of 12/min. Local examination revealed tender ulcer of 4x4 cm on anterolateral aspect of toe [Fig1].

Peripheral pulse was palpable. Neurological examination was normal. Systemic examination was unremarkable. Provisional diagnosis of Atrophie blanchie (It) Toe was made and biopsy was done. Histopathology revealed findings of thrombosis and sludging of superficial vessels, extravasation of RBCs consistent with Atrophie

blanchie. Her work up for ANA, Anti ENA Ab, Anti ds DNA Ab, VDRL were negative. APTT was 38/34 sec. Lupus anticoagulant, Anti-phospholipid Ab were positive. She was advised Tab Loprin 75mg daily, Inj Clexane 80mg s/c od, Tab Dipyridamole 100mg daily & Tab Nifedipine 30mg at night. At two weeks follow up her ulcer was partially healed and pain severity was slightly reduced. Clexane was continued and she was followed at four weeks. Ulcer healed completely. Clexane was switched off while she was continued on aspirin and dipyridamole. Ulcer reappeared again with severe pain in three weeks duration while her Lupus anticoagulant 84.6 seconds, Serum Anti cardiolipin IgG 98.15 GPL-U/ml, Anti phospholipid Ab remained strongly positive. She was advised Tab Rivaroxaban 15 mg, tab choliciferol as once day whereas tab Aspirin 75mg, tab Dipyridamole 75mg were continued. Ulcer healed completely with atrophic scar, and pain settled [Fig 2]. Clinical response to Rivaroxaban was valuable with complete healing of ulcer and no new lesion appeared in six months follow up.

Table 1: List of abbreviations.

Word	Abbreviation
Atrophie Blanchie	AB
Anti Phospholipid Antibody Syndrome	APLS
Blood Pressure	BP
Low molecular weight Heparin	LMWH



Fig. 1: Tender Ulcer Toe (It) Pretreatment.



Fig. 2: Healed ulcer at six month of Rivaroxaban.

DISCUSSION

Atrophie Blanche, also known as livedoid vasculopathy, is a painful, ulcerative disease of lower limb mainly involving ankle and dorsal of foot and is seen in young to middle aged females.^[1] It takes the form of telangiectasia and purpuric macules and papules which progress into hyper pigmented ulcers and ends as white atrophic scars and follows a chronic recurrent course.^[2] This rare disease is thought to be associated with hypercoagulable state and venous insufficiency leading to blood vessel occlusion and skin ulceration.^[3] These ulcers occur in the absence of previous ulceration and other causes of lower extremity ulceration should be ruled out.^[4] AB are extremely painful show poor response to treatment and are slow to heal.^[5]

Atrophic Blanche appears to be a manifestation of Antiphospholipid syndrome and patients are recommended to be screened for this.^[6] APLS is a hypercoagulable state with an underlying autoimmune mechanism leading to production of abnormal antiphospholipid antibodies.

Patient presenting with AB require thorough history, physical examination and lab workup to find associated disease if any.^[7] Patient should be screened for auto antibodies which include lupus anticoagulant, ANA, anti ds DNA antibodies, anticardiolipin antibodies and antiphospholipid antibodies to reach a diagnosis of APLS^[8]. Treatment options include anticoagulants, antiplatelets, anabolic steroids, thrombolytics, hyperbaric oxygen, IVIG, vitamin supplements, UV light or a combination of these plus wound care.^[9]

Rivaroxaban has shown to be effective in AB with or without identifiable coagulation disorder.^[10] It is an inhibitor of factor Xa and since it is given orally it appears to be a good alternative to LMWH which is given intravenously or warfarin which requires frequent monitoring and thus shows a better compliance.^[11] In several case series Rivaroxaban showed prevention and treatment of cutaneous infarction and ulceration in few weeks with limited side effects.^[1]

We reported this case as unique as it presented with single progressive tender ulcer on big toe for more than 18 months no response to aspirin. Its workup is important and unique with respect to its association with APLS so that anticoagulation could be given early in disease to save complications. Patient was counseled and advised surveillance in medical and dermatological department.

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