Not another Red Man Syndrome?
A case report on vancomycin-induced linear IgA dermatosis

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INTRODUCTION

Linear IgA dermatosis (LAD) is a rare autoimmune skin disorder, which is typically characterised by blisters on the skin and mucous membrane (Figure 1).[1] However, the clinical presentation can be variable and may resemble other bullous drug eruptions such as bullous pemphigoid or dermatitis herpetiformis.[1]

Vancomycin is the most common drug to cause LAD, with at least 48 published case report to date.[1] Penicillin, cephalosporins, angiotensin-converting enzyme inhibitors and non-steroidal anti-inflammatories drugs are also commonly associated with LAD.[2]

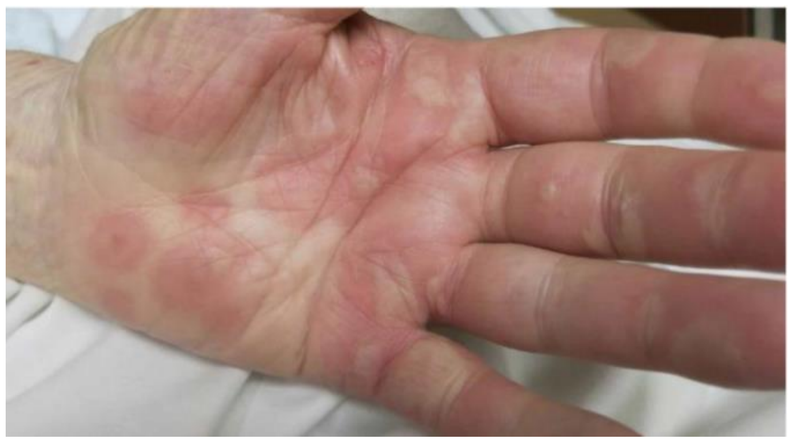

Figure 1: Bullous lesions of the palmar surface in an elderly man with vancomycin-induced linear immunoglobulin A (IgA) dermatosis.[1] (Image used with permission from Dr P Jha)

CASE DESCRIPTION

An 83-year old Caucasian man, with a past medical history of myelodysplastic syndrome (MDS) presented with positive blood cultures of coagulase negative *Staphylococcus epidermidis*, sensitive to vancomycin.

There was high clinical suspicion of infective endocarditis, with evidence of mitral regurgitation on echocardiogram, hence, patient was commenced on vancomycin for total of six weeks.

CASE PROGRESSION

DAY

1
- Vancomycin intermittent dosing commenced in hospital, appropriately dosed as per weight and renal function.

11
- Hospital-In-The-Home transfer for 24 hour vancomycin infusion.

13
- Erythematous rash (dry, scaly, non-itchy) appeared around arms, complicated by petechial rash associated with MDS-related thrombocytopenia.
- Infectious Diseases team consulted, regular medication trimethoprim/sulfamethoxazole prescribed for prophylaxis against Pneumocystic Pneumonia (PCP) ceased due to possible sulphonamide-associated skin eruption.

20
- Skin rash not improving despite regular moisturising.
- Patient was prescribed betamethasone dipropionate 0.05% ointment for twice daily application post dermatologist review.

22
- Skin biopsy taken.

28
- Skin biopsy showed subepidermal bulla formation; lymphocytes and neutrophils infiltrate at subepidermal and adjacent papillary dermis; direct immunofluorescence showed linear band of IgA.
- Diagnosis: vancomycin-induced linear IgA dermatosis

29
- Vancomycin ceased.
- Daptomycin IV commenced empirically at 6mg/kg for 14 days per Infectious Diseases team based on organism susceptibilities.

31
- Skin appeared less erythematous and flaky with frequent moisturising.

34
- Haematologist review. No further treatment option available.
- Patient was referred to home-based palliative care service.

38
- Daptomycin ceased.
- Patient for comfort care only.

39
- Patient passed away due to MDS disease progression.

DISCUSSION

Currently there is no standard diagnostic criteria for LAD and the diagnosis is based upon expert opinion.[1] The key feature of LAD is the linear deposition of IgA at the basement membrane of the epidermis on direct immunofluorescence (Figure 2).[3,4] The histological findings of subepidermal blister with neutrophils infiltrate is also a common feature in most reported cases.[1,3]

Skin lesion may take up to a month to develop after the first dose of vancomycin and they commonly appear on the extremities, palms and soles.[1,5] The severity does not correlate to serum vancomycin level and lesions usually disappear within 3 weeks upon discontinuation of vancomycin.[4,5]

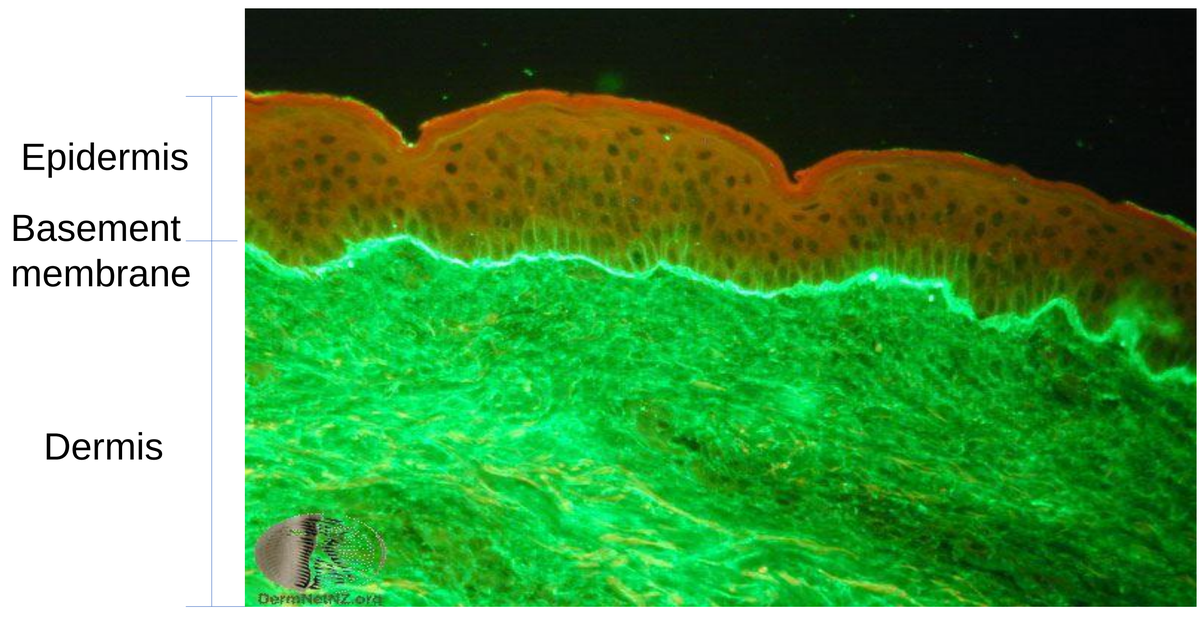

Figure 2: Linear deposition of IgA along the basement membrane as shown by direct immunofluorescence.[3] (Image used with permission from Dr A.Oakley)

This patient represents a case of vancomycin-induced linear IgA dermatosis, who developed erythematous rash after 12 days of vancomycin therapy. The clinical presentation of this patient did not showcase the typical vesicle or bullae formation, with mixed picture of thrombocytopenic petechiae rash and suspected sulphonamide drug eruption. A delayed diagnosis was made following the histological findings and direct immunofluorescence results from skin biopsy. Upon cessation of vancomycin, the rash improved but did not completely resolve due to MDS disease progression.

CONCLUSION

Vancomycin use is increasing, especially with increasing rates of methicillin resistant *Staphyloccocus aureus* infections.

Although a rare autoimmune disease, it is important for pharmacists to recognise this potential drug-induced dermatosis. Early recognition and management may prevent serious complications associated with this dermatosis.

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