Wound Sleuth

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"Odd-Looking" Areas on the Shin

This 38-year-old female with type 1 diabetes developed yellow-tinged plaques on bilateral pretibial areas about 10 years ago. She also has a history of retinopathy, neuropathy and gastroparesis. Her HbA1c currently is 7.3 to 8.1. At present she is using an insulin pump. She developed ulceration in July 2014 and has had multiple episodes of ulceration over the involved areas since.

Questions for the Reader

Q What is the diagnosis or cause, and how would you investigate this patient?

A The diagnosis of these pretibial plaques is necrobiosis lipoidica (NL). The cause of NL is unknown. It is seen in one in 300 persons with diabetes, but occasionally those without diabetes may be affected. Some individuals develop diabetes later in life.

Necrobiosis lipoidica typically appears over the pretibial areas of the leg, presenting with an atrophic plaque with a yellow discolouration in the centre of the involved area (Figure 1).

Telangiectasia is a condition characterized by dilation of the capillaries that causes them to appear as small red or purple clusters, often spidery in appearance (Figure 1).

The areas may ulcerate, and when they do they are very painful.

Investigations should include the following:

- HbA1c
- assessment of arterial circulation
- venous duplex Doppler, if venous surgery is being considered

Q What other diagnoses or causes would you consider?

A A skin biopsy will exclude sarcoidosis or squamous cell carcinoma. Both of these are rare, but possible.

Q What are possible management strategies?

A Strategies may include the following:

- avoid contributary behaviour such as smoking and trauma to shins
- control diabetes: optimize diabetic control if applicable (HbA1c in the 7 range)
- consider therapy: intralesional steroids into red active margins
- consider oral medication: aspirin and dipyridamole or pentoxiphylline
- consider topical medication: tacrolimus or clobetasol on the red active margin
- consider compression stockings if there is co-existing venous disease

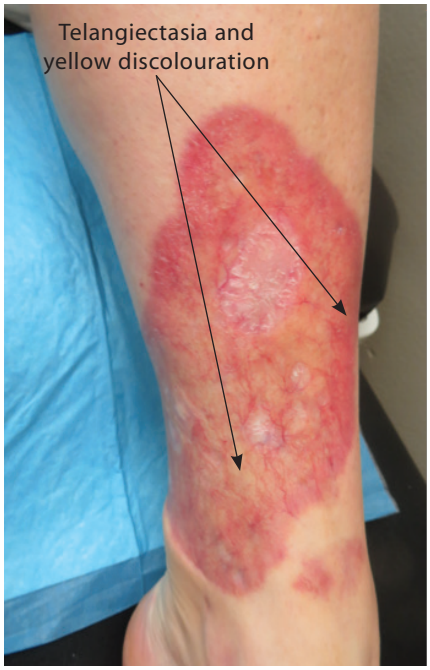

Figure 1

Conclusion

- The patient did not respond to hydroxychloroquine or pentoxifylline. Topical steroids made the problem worse. She found the intralesional steroids very painful.
- Currently she is not smoking. She stopped in August 2014 with her last episode of ulceration.
- Her HbA1c is between 7.3 – 8.1, as previously mentioned. She is followed by an endocrinologist and a diabetes education centre.
- She is wearing compression stockings, 20 to 30 mmHg, to control edema and protect her legs.
- Topically, she is using tacrolimus on the red active margin and a moisturizer on the atrophic yellow centre.
- Systemically she is taking aspirin and dipyridamole 25 to 200 bid.
- She has been ulcer free, and the plaque sizes have remained stable with the present regimen (Figure 2).

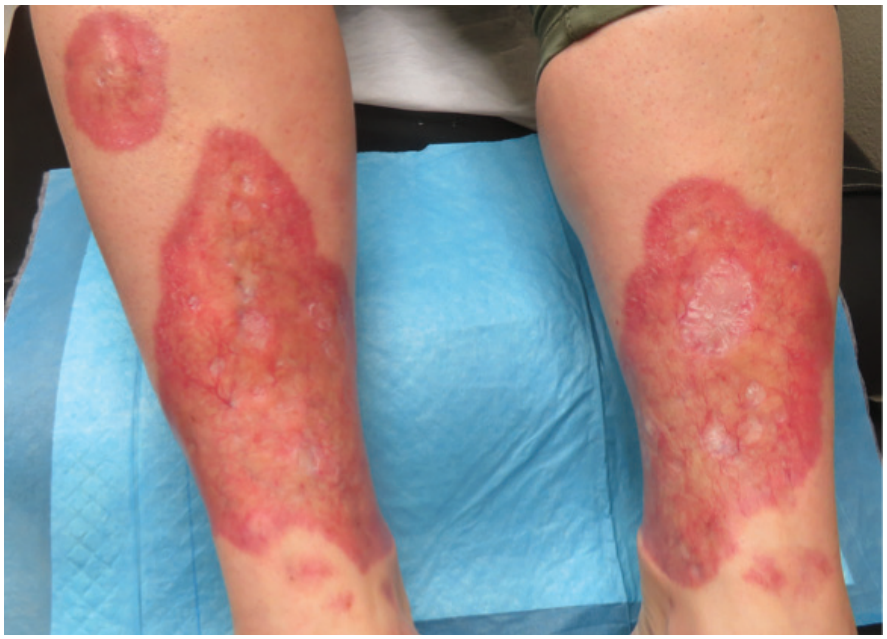

Figure 2