

Bosentan – A Previously Unrecognised Cause of Facial Telangiectasia

Dear Editor,

Bosentan is an endothelin-1 (ET-1) receptor antagonist approved for the treatment of pulmonary artery hypertension (PAH). Although flushing is a documented side effect of bosentan, the diagnosis can mimic other drug rashes and medical conditions where facial telangiectasia and/or flushing are prominent presentation. We present a 76-year-old woman complaining of flushing with gradual increase in redness.

She had been diagnosed with PAH several years ago secondary to a thromboembolic event and had been taking bosentan (Tracleer) for the past 4 years. She described the redness of the face appearing around the same time period. The redness is more prominent 15 to 30 minutes after taking the drug. The flushed effect, accompanied with tingling, lasted for about 5 to 10 minutes. Treatment with oral minocycline or topical metronidazole gel had not improved her rash.

Clinically, she was frail with evidence of sun damaged skin on exposed areas (Fig. 1). She had blotchy redness on both cheeks and nose. There was telangiectasia, but no papules or pustules. There was no rhinophyma or swelling of eyelids. Evidence of Poikiloderma of Civatte was also absent. She had been investigated for altered bowel habits but denied frank diarrhoea. Colonoscopy was not performed due to poor lung condition. Investigations were negative for 24 hour urinary excretion of 5 hydroxy-indole-acetic acid (5HIAA), and she had a normal abdominal ultrasound examination and liver function tests. ANA (Antinuclear Antibody test) showed a speckled pattern at a titre of 1/160.

A differential diagnosis of rosacea, poikiloderma and drug induced erythema was considered. The differential diagnosis of carcinoid syndrome was also considered in this patient because of her intermittent flushing, persistent erythema in the form of facial telangiectasis and the recent history of altered bowel habits. As the tests for carcinoid syndrome were negative, and that flushing was aggravated in the same areas whenever she took bosentan, we concluded that her condition was secondary to bosentan.

The main adverse events of bosentan are moderate and transient increase in transaminase levels. Other side events



Fig. 1 Patchy erythema on cheeks and nose with telangiectasia

include headache, dizziness, worsening symptoms of PAH, cough and flushing.^{1,2} The dermatological side effects of bosentan have been limited to painful erythema, generalised pruritus, toxic exanthems or leukocytoclastic vasculitis.³⁻⁵

It is both physiologically and pharmacologically plausible for bosentan to have clinical effects in skin as demonstrated by trial evidence with intradermal use in vivo and clinical use for digital ulcer disease.⁵ It is likely that a direct vasodilatory effect is the underlying mechanism as an explanation for the persistent erythema.

This case illustrates the importance of considering other medical conditions in the differential diagnosis of persistent erythema with telangiectasia including carcinoid syndrome. Persistent erythema due to telangiectasia occurring after the use of bosentan has not been described before in the literature although flushing has been.

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