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Selexipag Therapy for Raynaud Phenomenon-induced Severe Digital Ischemia in Intravenous Epoprostenol Responders With Connective Tissue Disease

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Raynaud phenomenon (RP) in connective tissue disease (CTD) can be resistant to oral vasodilator therapy, resulting in uncontrollable digital ischemia. Intravenous (IV) prostanoids are often used, but the benefit can be transient and not all patients respond. Selexipag is an orally active selective IP-type prostanoid receptor agonist used in pulmonary arterial hypertension.

We describe 2 patients where selexipag significantly reduced digital ischemia after failure of other oral vasodilating agents. Subject 1 with undifferentiated CTD had impressive healing of her fingers (Figure 1) and subject 2 with systemic sclerosis (SSc) had a similar effect on her toes (Figure 2). Both patients had previously responded to intermittent IV epoprostenol infusions but had rebound ischemia between infusions. There was a gap of at least 2 weeks between the last epoprostenol infusion and the initiation of selexipag. In both cases, selexipag was initiated in December, and significant improvement was evident by the end of January, despite the frigid Montreal weather. Refractory RP is a significant source of morbidity and reduced quality of life in CTD patients[1,2,3]. A placebo-controlled study of selexipag's effects on RP in SSc was negative[4,5], but patients were excluded if they received prostacyclin or its analogues in the prior 3 months, and there is no information on how many had received IV prostanoids or whether they responded to them.

Is it possible to identify a population that will respond to selexipag based on prior responsiveness to IV prostanoid infusions? Demonstration of success with selexipag in such a population would liberate them from the burden of infusions. The effects of selexipag deserve further investigation in enriched populations with digital ischemia that are responsive to IV prostanoids. A positive outcome would enhance personalized medicine for patients with CTD and RP.

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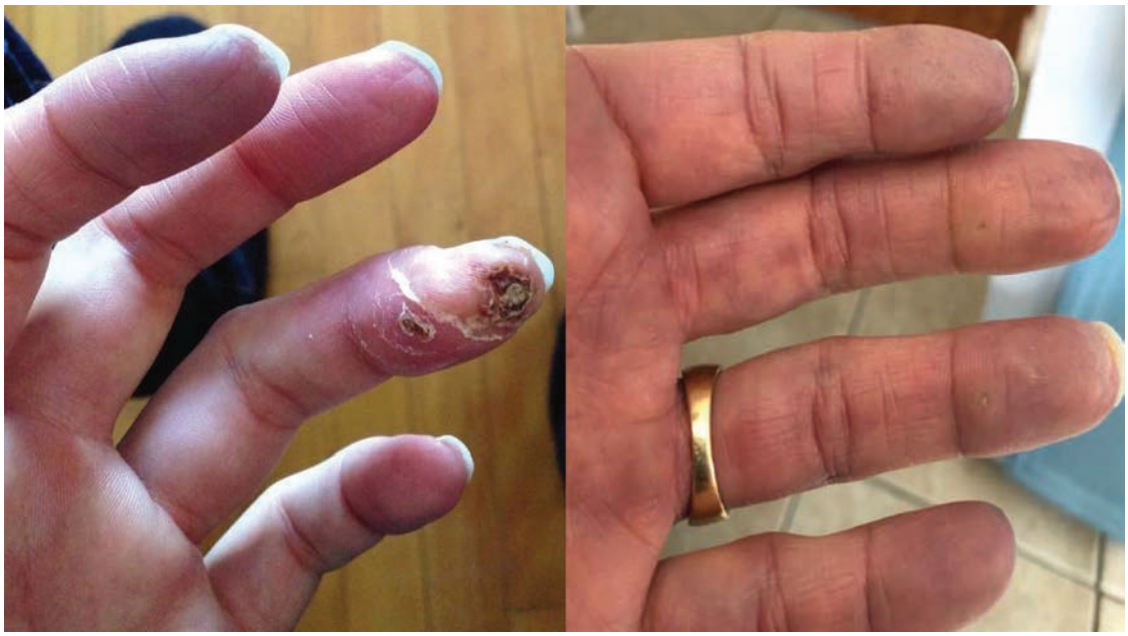

Figure 1. Hand and finger perfusion and skin lesions in subject 1, before (left) and after (right) selexipag therapy.

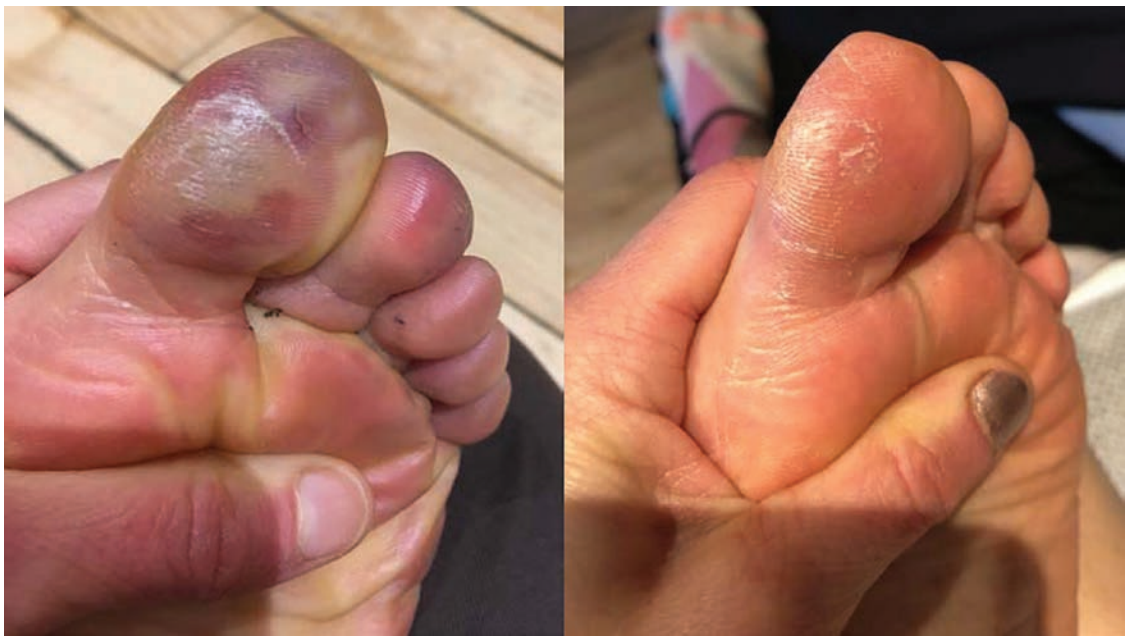

Figure 2. Foot and toe perfusion and skin lesions in subject 2, before (left) and after (right) selexipag therapy.