alprostadil. Alprostadil exerts a vasodilator, antiplatelet, and cytotoxic effect; it is an inhibitor of smooth muscle proliferation and fibroinhibin activity. Potential adverse events can occur, including fever, flushing, hypotension, hypocalcemia, and apnea.

Prostanoids have also been used in patients with peripheral arterial disease (PAD) in association with revascularization to relieve pain or improve ulcer healing. Prostanoids are probably not as effective in treating PAD because this condition is not an alteration of microcirculation as in livedoid vasculitis and SS. In venous ulcers, PGE-1 has also been described to be effective.

We describe the successful treatment of a case of SS with alprostadil. This drug induces immediate pain relief, complete healing, and prevention of new skin ulcers. Alprostadil may be a therapeutic alternative for other dermatological conditions secondary to obstructive vasculopathy of cutaneous microcirculation.

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Unilateral Axillary Toxic Erythema of Chemotherapy in a Patient With Previous Axillary Lymph Node Dissection: Implications for Pathophysiology and Therapy

Toxic erythema of chemotherapy (TEC) is a cutaneous eruption that occurs with the use of cytotoxic chemotherapy and that presents with painful or pruritic erythematous patches or plaques occurring symmetrically on the hands, feet, and/or intertriginous areas (groin, axilla, neck). The lesions are often red-brown and may have associated blistering or superficial desquamation. The eruption characteristically appears within 2 to 3 weeks of initiating chemotherapy and is dose dependent. The agents most often associated with TEC are cytarabine, anthracyclines, fluorouracil, taxanes, and methotrexate. To our knowledge, this is the first report of a unilateral presentation of TEC, with sparing of an axilla that had previously been exposed to lymph node dissection (ALND) and radiation therapy.

Report of a Case | A woman in her 50s with history of stage II invasive ductal carcinoma of the left breast (upper-outter quadrant), in remission after chemoradiation and lumpectomy, was diagnosed with acute myelogenous leukemia and received induction chemotherapy with mitoxantrone, etoposide, and cytarabine. Eleven days after beginning chemotherapy, she presented with dusky, erythematous patches in the bilateral inguinal and inframammary folds and right axilla (Figure, A). The patches were edematous with areas of desquamation. Histopathologic analysis revealed epidermal dysmaturation, reactive hyperplasia, spongiosis, and mild perivascular lymphocytic inflammation, with negative tissue culture, consistent with TEC. The patient was treated with triamcinolone 0.1% ointment twice daily.

Of note, the eruption was symmetrical except for sparing of the left axilla (Figure, B). Further inquiry confirmed that the spared side had previously undergone irradiation and ALND for breast carcinoma.

Discussion | Though the pathophysiology of TEC is unknown, it is thought that excretion of chemotherapy in sweat leads to direct toxic effects to eccrine glands and keratinocytes. Support for this theory is the typical location of lesions in areas of high concentration of eccrine glands and/or sites of occlusion of sweat, such as the palms, soles, and intertriginous areas. While it has been demonstrated by laser scanning microscopy that chemotherapeutic agents accumulate in eccrine glands in these locations, there is no proof that this directly causes the skin changes seen with TEC.

This is a case of a patient with TEC with unilateral sparing of an axilla that had previously been exposed to radiation therapy and ALND. Though this patient reported little baseline sweating, and therefore did not note hypohidrosis in the left axilla, decreased sweat production in the distribution of the intercostobrachial nerve is a complication of mastectomy and ALND. Sparing of an area of sympathetic denervation in this patient supports the theory that TEC is caused by excretion of chemotherapeutic agents in sweat. Alternatively, it is possible that there are long-term immunomodulatory effects of radiation, resulting in Langerhans cell dysfunction and decreased local cytokine release, perhaps preventing TEC from developing.

Treatment for TEC is limited and mostly supportive. Symptomatic treatment includes analgesics, emollients, and topical steroids. Small studies have shown a potential benefit with...
local hypothermia, topical 99% dimethyl sulfoxide, oral corticosteroids, celecoxib, and pyridoxine. Though the eruption is self-limited, it can delay chemotherapy and if severe, may require dose reduction or changing chemotherapeutic regimens. Over half of patients have a recurrent eruption with restitution of the offending agent, and there is no way to prevent TEC.

It has been proposed that treatments for hyperhidrosis such as topical aluminum chloride, iontophoresis, or botulinum toxin injection, could be used for prevention of TEC. The absence of cutaneous reaction in an area of hypohidrosis in this patient suggests that these interventions may be effective as TEC prophylaxis. If successful, the ability to prevent TEC by decreasing sweat production would have a significant benefit for patients who would otherwise have to reduce chemotherapy dose or switch regimens.

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Rumpel-Leede Phenomenon Associated With Tourniquet-like Forces of Baby Carriers in Otherwise Healthy Infants: Baby Carrier Purpura

Acute-onset, localized petechiae and purpura of the lower extremities occurred in 3 otherwise healthy infants following recent exposure to baby carriers. This case series identifies tourniquet-like forces associated with baby carriers as a mechanical cause of the Rumpel-Leede phenomenon.

Report of Cases | The index patient’s father—a pediatric dermatologist—had taken his infant son on a 2-hour hike using a “legs out,” forward-facing baby carrier. At the hike’s conclusion, the cloth material of the baby carrier was noted to have cinched tight around the infant’s lower extremities. Almost immediately after release of tension on the cloth material, a showering of petechiae and purpura was observed on the infant’s legs.