MEDICAL PHARMACIES
DRUG INFORMATION AND NEWS FOR HEALTH CARE PROVIDERS
TABLET
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DRUG-INDUCED EDEMA

Drug-induced peripheral edema (an accumulation of fluid in the lower legs, ankles and feet) is not necessarily dangerous, but when severe, is often the reason for stopping a medication. Although mild symptoms may not be noticed, severe edema can be painful and interfere with daily activities. Other causes of peripheral edema include heart failure, kidney failure, liver failure and pregnancy.

Some drugs that commonly cause peripheral edema include anticonvulsants (e.g. gabapentin, pregabalin-Lyrica®), calcium-channel blockers (CCBs) and dopamine agonists (e.g. bromocriptine , pramipexole-Mirapex®). Corticosteroids, NSAIDs (non-steroidal anti-inflammatory drugs), MAOIs (monoamine oxidase inhibitors), vasodilators (e.g. minoxidil), and thiazolidinediones (e.g. pioglitazone-Actos®) can cause sodium and fluid retention resulting in highly dose-dependent edema. The latter group of drugs often require administration of a diuretic for resolution of the edema.

Peripheral edema induced by CCBs is quite common but not all CCBs are created equal. The more potent CCBs belonging to the dihydropyridine class (e.g. amlodipine-Norvasc®, felodipine, nifedipine-Adalat®) are associated with higher rates of edema than lower-potency CCBs - the nonhydropyridines (e.g. diltiazem-Cardizem® and verapamil-Isoptin®). Higher doses of CCBs are more frequently associated with peripheral edema. CCB-induced edema is not due to sodium and fluid retention, therefore diuretics may not help. Edema with CCBs is often worse at the end of the day (disappearing after the patient remains recumbent overnight), in warm temperatures and tends to be more common with increasing age.

Peripheral edema from a drug usually develops gradually and occurs in both limbs. “One limb can exceed the other in size, particularly if venous disease or damage is present more in one limb”.

A number of options for the management of drug-induced peripheral edema are available. If the edema does not result from sodium and fluid retention, withdrawal of the offending drug is usually effective. The edema may resolve with a reduction of the dose. Diuretics may or may not work. Other management strategies include switching to an alternate drug, if possible, or the addition of a vasodilating drug such as an angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) in patients with hypertension. “Lifestyle changes such as reducing sodium intake, elevating the legs, increasing exercise, minimizing standing for long periods of time and wearing compression stockings might be helpful”. ■

INTRANASAL INSULIN FOR AD

The brain has its own insulin receptors to regulate cognitive function. In the brain, insulin affects metabolic processes (e.g. the composition and growth of nerve cells and the regulation of some neurotransmitters). In diabetes, impaired insulin signaling likely contributes to the loss of brain cell function and cognitive dysfunction more commonly found in people with type 2 diabetes. Deficiencies of glucose metabolism may only be one factor; vascular disease, hypertension and depression may also play a role.

Researchers have shown that intranasally administered insulin largely bypasses the peripheral circulation and reaches the cerebrospinal fluid (CSF) within 10 minutes, maintaining a functionally active state. In a small, placebo-controlled study of 140 elderly men and women (40 with early AD and 64 with mild memory impairment), patients were randomly assigned either 20 IU or 40 IU of daily intranasal insulin or placebo. Their story recall and performance was evaluated using various accepted tests over a 4 month period. A subset of patients underwent PET scans and examination of their CSF to determine insulin’s effect on the pathology of the brain.

Patients taking the lower insulin dose (but not the higher dose) showed improved story recall compared to placebo. All patients taking intranasal insulin maintained their general cognitive function and ability to cope with activities of daily living. The PET scans and CSF tests demonstrated that the metabolic integrity of the brain was also preserved. Larger and longer studies are needed but intranasal insulin opens a promising new treatment path for the treatment of AD. ■

DRUG NEWS

Acuvail® (ketorolac tromethamine) 0.45% preservative-free ophthalmic solution Allergan (not currently a benefit of ODB)

Acuvail is a nonsteroidal anti-inflammatory ophthalmic solution for the treatment of pain and inflammation (in adults) following cataract surgery.

Warnings, Precautions & Contraindications:

Acuvail may:

slow or delay healing.

increase bleeding of ocular tissues. Use caution in patients taking drugs which may prolong bleeding time.

result in keratitis, corneal thinning, erosion, ulceration or perforation of the cornea (which may threaten sight).

Acuvail is contraindicated in patients:

with a hypersensitivity to any of its components.

who are hypersensitive to ASA, other NSAIDs and phenylacetic acid derivatives.

Acuvail should not be administered:

while wearing contact lenses

during late pregnancy. Use in earlier pregnancy only if the potential benefit justifies the risks.

Adverse Effects: 1 to 6% of patients experience increased intraocular pressure, conjunctival hemorrhage and blurred vision.

Dose & Administration: One day prior to cataract surgery, 1 drop is applied to the affected eye and continued once daily post-operatively for 2 weeks. The solution from the vial is to be used immediately after opening and the remaining contents discarded immediately following administration.

Availability & Storage: Acuvail is supplied in clear, single-use vials packaged in 6 foil pouches (5 vials per pouch). The vials should be stored in the pouch, protected from light with the pouch ends folded closed. ■

Prevegyne® (vitamin C) 250 mg controlled release vaginal tablet Duchesnay (not currently a benefit of ODB)

Prevegyne is provisionally approved by Health Canada for the treatment and prevention of bacterial vaginosis. It has been granted an exemption number until a full review is complete. Prevegyne has been available in Europe for 10 years.

Its efficacy is comparable to vaginal metronidazole. Prevegyne lowers the pH of the vaginal fluid to its normal physiologic level and rapidly neutralizes the fishy odour typically caused by bacterial vaginosis. The sustained release formulation is designed to improve efficiency and minimize irritation of the vaginal epithelium from high vitamin C concentrations. There is little systemic absorption of vitamin C. The product is contraindicated in persons hypersensitive to ascorbic acid.

Adverse Effects: Vaginal itching and burning are the most common adverse effects. Vaginal discharge, dry vagina and sleeplessness have also been reported.

Dose & Administration: One Prevegyne tablet should be inserted deep into the vagina using the index or middle finger (preferably at bedtime) for 6 days. For ease of insertion, the patient should be in a recumbent position. The treatment can be extended or repeated if needed. The vaginal tablets should not be crushed or split. Prevegyne should be stored at room temperature protected from moisture. ■

(Refer to the product monographs for complete information)

Now available…

Toloxin® (digoxin) 0.05 mg/ml oral solution

Twynsta® (temisartan/amlodipine) 80/5 mg, 80/10 mg, 40/5 mg & 40/10 mg

Editor; Nancy Addington, R.Ph., B.Sc.Phm
References on Request
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