Your Monthly Update

Dear Colleague

Welcome to the October 2013 newsletter from Pure Bio Ltd.

Did you know:

A recent study suggests that high levels of homocysteine in the blood may be associated with a higher risk of cognitive impairment in older people. The research found that people who had major depression and high homocysteine levels performed significantly worse on the cognitive tests. (http://www.ncbi.nlm.nih.gov/pubmed/?term=23928176)

Don't forget our website on www.purebio.co.uk. We always welcome feedback and suggestions.

Chronic Venous Insufficiency

Protocol Summary

Ranking	Nutritional Supplements	Botanical Medicine
Primary	Flavonoids Proanthocyanidins Pycnogenols	Butcher's Broom
Secondary		Gotu Kolu Red vine leaf
Other		

Primary – Reliable and relatively consistent scientific data showing a substantial health benefit.

Secondary – Contradictory, insufficient, or preliminary studies suggesting a health benefit or minimal health benefit.

Other – An herb is primarily supported by traditional use, or the herb or supplement has little scientific support and/or minimal health benefit.

The Facts

Chronic venous insufficiency (CVI) is poor return of blood from feet and legs back to the heart.

Causes

CVI may occur following deep vein thrombosis, or DVT (excessive clotting and inflammation of the leg veins). CVI also results from a simple failure of the valves in leg veins to hold blood against gravity, leading to sluggish movement of blood out of the veins, resulting in swollen legs.

Chronic venous insufficiency is more common among those who are obese, pregnant, or who have a family history of the problem. Individuals who have had trauma to the leg through injury or surgery are also more likely to develop the condition.

Other causes of chronic venous insufficiency include, but are not limited to, the following:

- High blood pressure in the leg veins over a long time, due to sitting or standing for prolonged periods
- Lack of exercise
- Smoking
- Phlebitis (swelling and inflammation of a superficial vein, usually in the legs)

Symptoms

Symptoms of chronic venous insufficiency may include:

- Swelling in legs and/or ankles
- Tight feeling in the calves and itchy painful legs
- Pain during walking that stops with rest
- Brown-coloured skin, particularly near the ankles
- Varicose veins
- Leg ulcers

Lifestyle Modification

- Those affected by chronic venous insufficiency should not sit or stand for long periods of time.
- When sitting, legs should be elevated.
- Walking also aids dynamic movement of blood and encourages venous return.
- Wearing tight-fitting compression stockings further supports the veins.

Orthodox Treatment

CVI treatment may include:

- **Conservative treatment to improve blood flow in the leg veins.** Methods to help increase blood flow in the leg veins include elevating the legs to reduce pressure, and compression stockings to apply pressure on the legs which aid blood flow. Other methods include keeping the legs uncrossed when sitting, together with regular exercise.
- **Medications.** Several types of medications may be used to treat CVI. Diuretics may be used to reduce swelling. Pentoxifylline, which improves the flow of blood through the vessels, may be used in combination with compression therapy to help heal leg ulcers. Anticoagulation therapy (blood thinning medication) may be recommended for those persons who have recurring problems with the veins in their legs.
- **Sclerotherapy.** For patients whose condition is more advanced, sclerotherapy may be prescribed. This involves injecting a chemical into the affected veins. The chemical causes scarring in the veins so that they can no longer carry blood. Blood then returns to the heart through other veins and the body absorbs the scarred veins.
- **Surgery.** Surgery is recommended in fewer than 10 percent of people with chronic venous insufficiency. Surgical procedures that may be used to treat the condition include:
    - **Ligation.** This procedure involves tying off an affected vein so that blood no longer flows through it. If the vein and/or its valves are heavily damaged, the vein will be removed ("vein stripping").
    - **Surgical repair.** A vein and/or valves may be surgically repaired, either through an open incision or with the use of a long catheter.
    - **Subfascial endoscopic perforator surgery.** A minimally-invasive procedure performed with an endoscope. The perforator veins in the calf are clipped and tied off. This allows blood to drain into healthy veins and improves ulcer healing.

Nutritional Supplement Treatment Options

Flavonoids - ***500 mg hydroxyethylrutosides BD.*** Flavonoids promote venous strength and integrity. Most trials of flavonoids in patients with CVI have used a type of flavonoid called hydroxyethylrutosides (HR), which is derived from rutin. These double-blind and other controlled trials have consistently shown a beneficial effect of HR in clearing leg swelling and other signs of CVI. Positive results from a double-blind trial have been obtained using 500 mg of HR taken twice per day for 12 weeks. In this trial, the preparation was found to add further benefit to that provided by compression stockings commonly used to treat CVI. Similar results were obtained in another controlled trial. HR has also been used successfully as a topical preparation for the treatment of CVI.

Proanthocyanidins - ***50 to 100 mg BD or TDS.*** Proanthocyanidins (OPCs), a group of flavonoids found in pine bark, grape pip, grape skin, bilberry, cranberry, black currant, green tea, black tea, and other plants, have also been shown to strengthen capillaries in double-blind research using as little as two 50 mg tablets per day. In a double-blind trial using a total of 150 mg OPCs per day, French researchers reported reduced symptoms for women with CVI. In another French double-blind trial,

supplementation with 100 mg taken three times per day resulted in benefits within four weeks.

Pycnogenol - ***150 to 300 mg per day.*** A controlled study reported that 150 mg per day of Pycnogenol improved symptoms of chronic venous insufficiency (CVI) and reduced associated leg swelling. Double-blind trials have also found that 100 mg of Pycnogenol two to three times daily reduced symptoms of CVI and improved measurements of blood flow and pressure inside of the veins. A controlled trial found that 150 mg per day of Pycnogenol was more effective for CVI than use of elastic stockings alone, but that a combination of the two was better than either treatment alone. Several preliminary studies of CVI have investigated pycnogenol in comparison to or combined with other flavonoid extracts. These studies reported that Pycnogenol (150 to 300 mg per day) was more effective than 1,000 mg per day of a flavonoid mixture of 90% diosmin and 10% hesperidin, that 360 mg per day of Pycnogenol was more effective than 600 mg per day of horse chestnut seed extract, and that a daily combination of 40 mg Pycnogenol and 940 mg hydroxyethylrutosides was more effective than 1,200 mg per day of hydroxyethylrutosides alone.

Botanical Treatment Options

Butcher's Broom - ***standardized extract providing 15 to 30 mg ruscogenins TDS.*** Butcher's Broom is a traditional remedy for CVI. One double-blind trial used a combination of butcher's broom, the flavonoid hesperidin, and vitamin C. This was found to be better than a placebo for treating CVI. In a comparison study, a product combining butcher's broom extract, the flavonoid hesperidin, and vitamin C was more effective than a synthetic flavonoid product for treating CVI. A double-blind study, in which Butcher's broom alone was used, has confirmed the beneficial effect of this herb. Clinical trials have used standardized extracts providing 15 to 30 mg of ruscogenins, three times each day. The amount of butcher's broom extract used in these trials is 150 mg twice daily. Other sources recommend standardized extracts providing 15 to 30 mg of ruscogenins, given three times each day.

Horse Chestnut - ***standardized extract providing 50 mg aescin BD or TDS***. According to an extensive overview of clinical trials, standardized horse chestnut seed extract, which contains the active compound aescin, has been shown to be effective in double-blind and other controlled research, supporting the traditional use of horse chestnut for venous problems. In these trials, horse chestnut extract containing 50 mg of aescin was given two to three times daily for CVI. The positive effect would appear to result in part from horse chestnut's ability to strengthen capillaries, which leads to a reduction in swelling.

Gotu Kola - ***60 to 120 mg daily of a standardized herbal extract.*** Gotu kola extracts, standardized to triterpenoid content, have been found successful in small preliminary trials to treat CVI. The amount of extract used in these trials ranged from 60 to 120 mg per day.

Red Vine Leaf - ***360 to 720 mg daily of a standardized herbal extract.*** A double-blind trial demonstrated that red vine leaf extract is effective at relieving the symptoms

and swelling associated with CVI. One group of participants took either 360 mg or 720 mg per day of a standardized extract for 12 weeks, and another group took a placebo. At the end of the treatment period, those who had taken the herb experienced significant improvement in symptoms of leg heaviness, tension sensation, tingling, and pain compared with those who had taken the placebo. Objective measurements of leg swelling were also significantly improved in the red vine group compared to the placebo group.

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