RAYNAUD'S SYNDROME

Syndrome VS Systemic Disease

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Raynaud's syndrome includes primary Raynaud's disease, Raynaud's phenomenon, and occupational Raynaud's disease.

Understanding Raynaud's syndrome

Raynaud's syndrome is a condition in which the small arteries of the fingers of the toes to contract or spasm. This causes the skin to turn pale (blanching) or a patchy deep shade ranging from red to blue.

The Syndrome, Disease, and Phenomenon

When Raynaud's occurs alone, without any accompanying autoimmune condition, it is called primary Raynaud's or Raynaud's disease. When Raynaud's symptoms have a specific cause or occur in conjunction with another medical disorder, the condition is called Raynaud's phenomenon or secondary Raynaud's. Raynaud's phenomenon, like Raynaud's disease, primarily affects the hands and feet.

However, Raynaud's phenomenon is a more serious disorder that may cause blood vessel scarring and long-term consequences. Raynaud's symptoms may also occur as an occupational injury (occupational Raynaud's) in people who use vibrating tools or who perform repetitive motion activities. These three types of Raynaud's are collectively referred to as Raynaud's syndrome.

Symptoms

The characteristic skin changes that occur in Raynaud's have a sudden onset, occurring within several minutes. Each episode lasts from 5 minutes to one hour, and episodes are triggered cold or chills, even slight exposures, for instance, opening a refrigerator door. These symptoms are caused by blood vessels spasms related to overly sensitive nerve endings in the extremities. The white phase or blanching is a sign of total blood deprivation and typically progresses to the blue phase of limited blood flow. As blood vessels are constricted, blood flow to the affected area is diminished. Persistent damage to affected areas can cause a vicious cycle of episodes triggered by both cold and stress.

Disease Course

Raynaud's often occurs out of the blue and then remains dormant for years, emerging later during periods of infection, fatigue or stress. With recurrent episodes of symptoms, the fingers may become thin and tapered with smooth, shiny, tight-appearing skin and
slow-growing nails. The affected area may develop a loss of sensation, tissue death or gangrene, skin ulcerations and become susceptible to infection.

**Systemic Symptoms**

Raynaud's can, in some cases, also affect the lungs. When this occurs, cold air triggers a coughing spasm, and over time pulmonary hypertension may develop. The kidneys and heart may also be affected in association with diminished blood flow to the fingers. The nerves that supply muscles may also become affected, and arteries throughout the body may become constricted.

**Accompanying Disorders**

Raynaud's phenomenon often occurs in patients with rheumatoid arthritis, hypothyroidism, systemic lupus erythematosus, atherosclerosis, and scleroderma. More than 95 percent of people with scleroderma have Raynaud's phenomenon, but only a small number of patients with Raynaud's syndrome develop scleroderma. In patients with primary Raynaud's it's important to check for the emergence of other conditions. It's reported that 48 percent of these patients have other symptoms suggesting the future development of other conditions particularly systemic sclerosis.

**Treatment**

Although there is no cure for Raynaud's there are ways to minimize the number of episodes and the severity of the attacks. These include keeping warm by avoiding exposure to the cold and dressing in layers. Keeping the head and torso warm preserves the body's core temperature. An electric blanket offers benefits and is especially useful for warming the bed before going to sleep. Hot water bottles also offer benefits. Mittens are more effective for keeping the hands warm than gloves. Insulated cup holders can also reduce exposure to cold temperatures. Smoking, because of its constricting effect on blood vessels, is a risk factor for Raynaud's and can worsen symptoms. Other vasoconstrictors that should be avoided include caffeine, diet pills, decongestants and cold medications. Creams and emollients should be used to protect the skin from cracking.

Avoiding stress or using stress reduction techniques to reduce stress are also beneficial. These techniques include light exercise such as yoga or tai chi, biofeedback, meditation, music therapy, aromatherapy, physical therapy exercises, Gestalt therapy and energy treatments. It's also important to avoid repetitive motions such as typing or sewing and to avoid carrying shopping bags or purses with handles or straps that can cut into the skin and impede circulation.

Treatment options include calcium channel blockers such as nifedipine, vasodilators such as guanethidine, and nutrient supplements. These include substances that increase circulation and health support the vascular system, such as vitamin E, vitamin C, ginkgo biloba, inositol, niacinamide, magnesium, calcium, and essential fatty acids.
Recently, substances used to prevent platelet clumping such as dipyridamole and the immunosuppressant pentoxifylline have been used although the latter has fallen out of favor because of its tendencies to cause bleeding. Newer drugs in use for Raynaud's include piracetam, iloprost, dazoxiben and Ketanserin.