Infective Endocarditis

What Is It?

Infective (or Bacterial) Endocarditis is a serious inflammation of the endocardium, the smooth interior lining of the heart, and of the heart's valves.

The infection is usually caused by bacteria, but in rare cases, fungi or other organisms may be responsible. The organisms usually enter the body through intravenous drug use, invasive medical or dental procedures (such as cardiac catheterizations or minor surgeries), or by means of cuts or bruises.

Two types of this non-contagious disease are recognized:

- Acute Infective Endocarditis usually comes on suddenly and may become life-threatening within a matter of days. This type of Infective Endocarditis is usually caused by staphylococci, streptococci, pneumococci, or gonococci bacteria.
- Subacute (or Bacterial) Infective Endocarditis (sometimes called SBE) develops gradually over a period of weeks or months. It is usually caused by haemophilus bacteria or by different forms of streptococci than those that cause the acute form of the disease.

Infective Endocarditis is most common among men in their 50's and especially prevalent among African-Americans. Nearly two thirds of cases occur in conjunction with preexisting heart conditions, surgeries, or defects.

Patients with congenital heart defects are especially prone to endocarditis. Blood moves at high velocity across defects such as VSD's, stenotic or leaky valves, and PDA's. This high velocity flow facilitates the sticking of the blood's clotting elements to these defects. If bacteria are in the blood stream, they become enveloped in the clotting elements adhering to the defect and endocarditis may develop there.

What Are Its Effects?

Infective Endocarditis has a variety of possible symptoms, some of which may be initially overlooked. These include low-grade fever, chills, nocturnal sweating, heart murmurs, weight loss, back and joint pains, and fatigue.

As the disease progresses, there may be high fever, severe chills, swelling of the abdomen and extremities, shortness of breath, confusion, and rapid or irregular heartbeat. The valves and tissues of the heart are physically damaged by the bacterial infection, which may cause heart failure.

The main difference between the Acute and Subacute forms of Infective Endocarditis is the rate at which the various symptoms appear - suddenly in the acute form, gradually in the subacute form.

Infective Endocarditis is almost always fatal if untreated.

How Is It Treated?

The diagnosis of Infective Endocarditis may be made on the basis of symptoms and high risk factors (see below) Antiobiotics are then administered (often intravenously and for a period of some weeks) to eradicate the infecting organisms. Other medications may be given to relieve the various symptoms.

Rest is important during the course of the disease, with care to flex the joints occasionally to ward off the formation of blood clots in the veins.

People with congenital heart defects or artificial heart valves are especially at risk for this disease. High risk factors also include alcohol abuse or self-administered intravenous drug use. In addition, pregnancy and a history of Rheumatic Fever increase the likelihood of infection.

After recovery, which may take some weeks, it may be necessary to take antibiotics (antibiotic prophylaxis) before undergoing invasive medical or dental procedures.