

2 Angioplasty

People with heart disease now have shorter hospital stays thanks to innovations in medical technology. One important change is a modern non-surgical procedure called angioplasty. The method is used to treat some patients with coronary artery disease, or CAD.

A symptom of CAD is a narrowing of the arteries. This is usually caused by the build-up of a waxy material called plaque. Each artery supplies the heart with oxygen-rich blood and feeds a specific part of the heart. When the arteries are narrowed, too little oxygen-rich blood reaches the heart, causing chest pain.

Angioplasty improves the relay of blood to the heart by expanding the constricted passageway. A balloon device is inserted at the narrowed point of the diseased artery. The balloon is inflated and the artery returns to its proper width, improving the flow of oxygen-rich blood.

Before a patient undergoes angioplasty, he must first go through routine tests and X-rays to assure his condition is prime for the procedure. Then the patient receives medications to help him relax, as well as a local anesthesia to deaden the nerve endings at the point where the balloon device is introduced to the body. The patient remains conscious throughout the procedure.

When the procedure begins, the guiding device is inserted in an artery in either the groin or arm. A dye that is sensitive to X-ray is injected into the artery so that the physician can view the narrowed artery more clearly. The physician then guides the balloon device through the narrowed artery with the help of a guidewire and an X-ray monitor. When the balloon reaches the narrowed point of the artery it is inflated for 20 to 60 seconds. It is then deflated and inflated several more times until the waxy build-up is compressed against the lining of the artery and the passageway is expanded.

Once the artery's path is cleared, the physician checks to make certain the flow of blood has improved. The guiding device is then removed. The entire procedure takes about two hours.

The patient is required to remain still for a period of several hours following the procedure in order to discourage bleeding. But within 12 to 24 hours many patients are able to walk unassisted and without chest pain.

Though angioplasty does not cure CAD, it offers a relatively quick and simple method of relief to patients who suffer from heart disease.

Recalling Facts

1. CAD stands for
 - a. cardial arterial disease.
 - b. coronary artery disease.
 - c. coronary angioplasty disease.
2. Angioplasty is a
 - a. procedure.
 - b. device.
 - c. cure.
3. Dye is used to help
 - a. widen the narrowed artery.
 - b. the physician view the narrowed artery.
 - c. sensitize the patient's heart.
4. Throughout the procedure, the patient is
 - a. unconscious.
 - b. partially conscious.
 - c. conscious.
5. During angioplasty, the balloon remains inflated for
 - a. 20 to 60 seconds.
 - b. 20 to 60 minutes.
 - c. two hours.

Understanding the Passage

6. CAD is characterized by
 - a. an excess of oxygen-rich blood in the heart.
 - b. a diminished number of red blood cells.
 - c. a narrowing of the arteries.
7. The purpose of angioplasty is to
 - a. improve the flow of blood to the heart.
 - b. cure heart disease.
 - c. give a clear view of the patient's heart.
8. Chest pain sometimes occurs when the
 - a. arteries don't inflate.
 - b. heart receives too little blood.
 - c. arteries don't build up enough plaque.
9. The author implies angioplasty is
 - a. an expensive procedure.
 - b. an innovative procedure.
 - c. dangerous to perform.
10. The author implies that angioplasty affects the
 - a. length of stay in hospitals.
 - b. patient's likelihood of future heart disease.
 - c. development of plaque in the arteries.