Short note on angiography

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Introduction

Angiography or arteriography is a medical imaging method that allows doctors to see the interior, or lumen, of blood vessels and organs in the body, with a focus on the arteries, veins, and heart chambers. This is usually accomplished by injecting a radiopaque contrast agent into the blood artery and imaging it with X-ray methods like fluoroscopy.

Access to the blood vessels is most often acquired by the femoral artery, to look at the left side of the heart and the arterial system; or the jugular or femoral vein, to look at the right side of the heart and the venous system, depending on the kind of angiography. A sort of contrast agent (which shows up by absorbing the X-rays) is added using a system of guide wires and catheters.

The X-ray images taken may either stay displayed on an image intensifier or motion pictures. For all structures aside from the heart, the pictures are typically taken utilizing a strategy called Digital Subtraction Angiography (DSA). Images for this situation are typically taken at 2-3 frames each second, which permits the interventional radiologist to assess the progression of the blood through a vessel or vessels. This strategy subtracts the bones and different organs so just the vessels loaded up with contrast agent can be seen. The heart images are taken at 15-30 frames per second without utilizing a subtraction strategy. Since DSA requires the patient to stay motionless, can't be used on the heart. Both these strategies enable the interventional radiologist or cardiologist to see stenosis (blockages or narrow wings) inside the vessel which might be restraining the flow of blood and causing pain.

After the procedure has been completed, if the femoral technique is applied, the site of arterial entry is either manually compressed, stapled shut, or sutured in order to prevent access-site complications.

Coronary Angiography

A coronary angiogram is a procedure that utilizes X-ray imaging to see heart veins. The test is for the most part done to check whether there is a restriction in blood stream going to the heart. Coronary angiograms are essential for an overall gathering of strategies known as heart or cardiac catheterizations. Quite possibly the most well-known angiograms performed is to picture the blood in the coronary artery. A long, flimsy, adaptable cylinder called a catheter is utilized to direct the X-ray contrast agent at the ideal region to be envisioned. X-ray images of the transient radio contrast dispersion inside the blood streaming inside the coronary supply routes permits perception of the size of the course openings. The presence of atherosclerosis or atheroma inside the dividers of the supply routes cannot be obviously resolved.

Coronary angiography can imagine coronary course stenosis, or narrowing of the vein. The level of stenosis can be controlled by contrasting the width of the lumen of limited fragments of vein with more extensive portions of contiguous vessel.