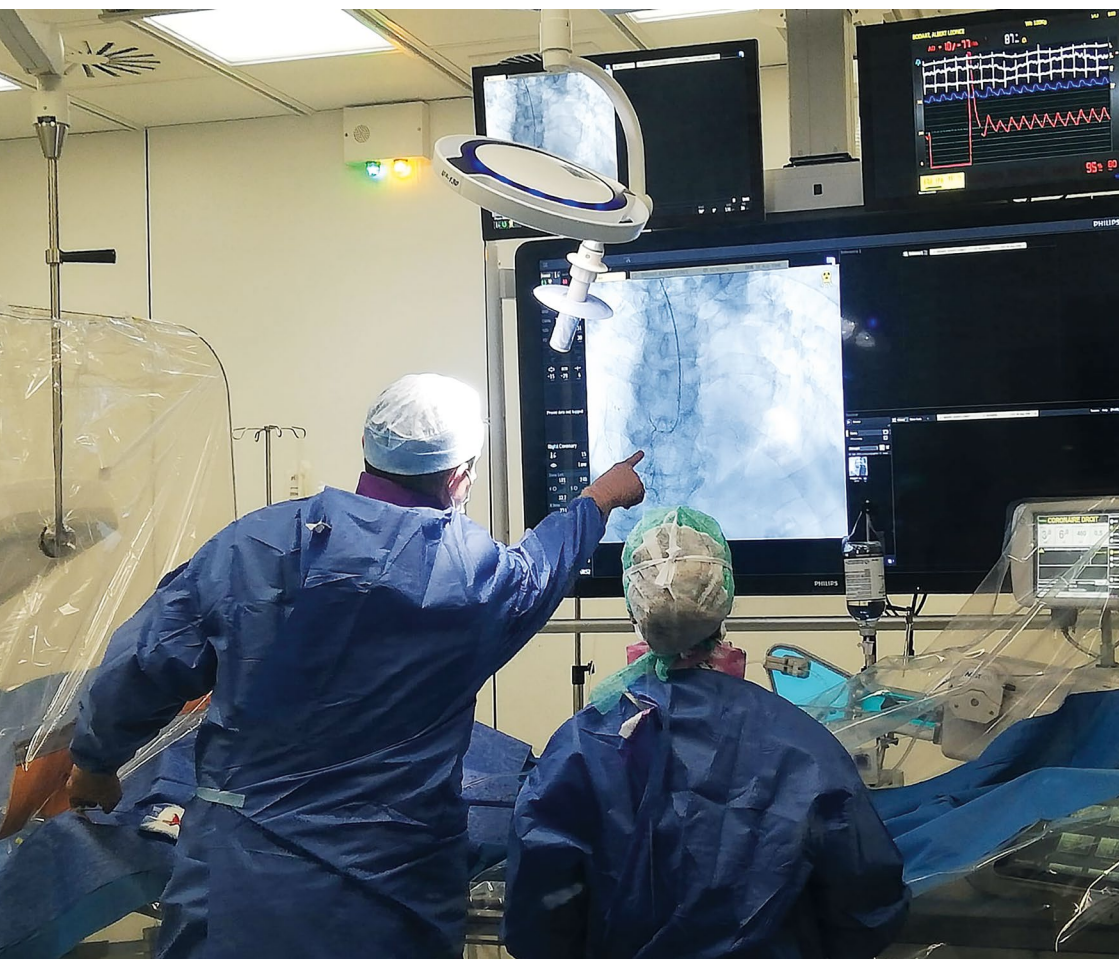


CHIREC – DELTA SITE INTERVENTIONAL CARDIOLOGY

CORONARY ANGIOGRAPHY AND CORONARY ANGIOPLASTY



Chirec - Delta Site
Boulevard du Triomphe, 201 - 1160 Brussels



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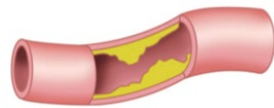
INTRODUCTION

The arteries of the heart (coronary arteries) can be damaged by atherosclerosis: fat deposits build up on the inner wall of the blood vessels, narrowing the vessels and restricting blood flow.

Narrowing of the blood vessels can cause chest pain, known as 'angina pectoris' or 'angina', but also infarction, in the event of acute, total obstruction. Very precise information on the state of the coronary arteries is therefore essential: coronary angiography is the best procedure for diagnosing the presence and extent of coronary artery disease.



Normal artery



Artery with atherosclerosis

WHAT IS CORONARY ANGIOGRAPHY?

Coronary angiography is an X-ray of the coronary arteries (or angiogram) which provides a very precise image of the state of the coronary arteries (narrowing, or other conditions).

PRACTICAL INFORMATION

Before the procedure

If you are on anticoagulant medication (Sintrom®, Marevan®, Pradaxa®, Xarelto®, Eliquis®, Lixiana®, etc.), talk to your doctor: this should be stopped 48-72 hours before the procedure. It can sometimes be replaced by subcutaneous anticoagulant injections.

During your hospital stay, some of your medications may be stopped or replaced by other treatments. Please mention any allergies, particularly allergy to iodinated contrast agents. According to your medical records, different additional procedures may be performed (such as chest X-ray, electrocardiogram, echocardiography, blood tests, etc.)

Documents to bring with you

- Your identity card
- Your attending physician's contact details (address and telephone number)
- A detailed list of your medication
- Coronary angiography reports or bypass surgery reports (if applicable)
- The completed consent form

PREPARATION

You are not allowed to eat or drink after midnight, even if your coronary angiography procedure is scheduled for the afternoon. However, you must take your medication (excluding those discontinued for the procedure) with a small amount of water.

During admission, a wide area in the groin region will be shaved (resembling 'shorts'), along with your wrists, in preparation for the procedure. For hygiene reasons, you are advised not to shave at home.

Coronary angiography is carried out in a cardiac catheterization room or operating theatre specifically designed for this procedure. The procedure is performed either via the wrist (radial) access, or via the groin (femoral) access. This decision will depend on your anatomy, and the operator, etc.

IMPLEMENTATION OF THE PROCEDURE

Diagnosis by coronary angiography

You will be placed on the examination table in the supine position.

The groin and wrist area are disinfected using an antiseptic, and a sterile surgical field is put in place. The physician wears a sterile surgical gown over a lead apron (to protect against radiation). After local anaesthesia is administered, a thin synthetic (introducer) tube is inserted into the artery.

The examination is performed via the introducer. A contrast agent is injected via the catheter to allow the physician to view the coronary arteries on a screen. Injection of the iodinated contrast agent can sometimes cause a transient heat sensation, metallic taste and nausea.

The examination lasts 30 to 40 minutes. During the examination, you may experience transient palpitations. At the end of the examination, the catheters and introducers are removed and compression is applied to the puncture site to prevent any bleeding.

In certain cases, after informing and discussion with the patient, treatment with angioplasty then takes place immediately.

Possible complications

Any intervention on the human body, even when performed by skilled personnel under optimum safety conditions, entails a minor risk of complications :

- The most common complication is haematoma, i.e. bluish appearance of the skin, which may persist for several days, but is usually of no significance.
- There is a possibility of an allergic reaction to the contrast agent.

Serious complications are very rare.

TREATMENT WITH ANGIOPLASTY

A balloon catheter dilates the inside of the vessel, precisely at the site of stenosis, thus creating a wider opening for blood to circulate.

A stent is an endoprosthesis in the form of a cylindrical metallic mesh, placed inside the coronary arteries to preserve their calibre. The purpose of the stent is to preserve the diameter obtained by inflating the balloon, preventing the elastic narrowing which inevitably occurs when dilation takes place using a balloon only. Some stents release medication locally to manage the artery healing process.

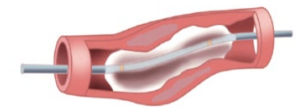
Once in place, the stent should not move. Being made of stainless steel, it will not rust, and will not be rejected by the body.

At the end of the examination, the catheters and introducers are removed and compression is applied to the puncture site to prevent any bleeding or haematoma.

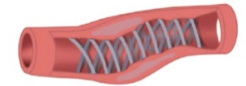
WHAT TYPES OF TREATMENT ARE AVAILABLE?

If small atherosclerotic plaques are observed, the patient will be offered medicinal treatment and asked to make changes to correct risk factors (high blood cholesterol, high blood pressure, smoking, obesity, diabetes, sedentary lifestyle, poor diet).

If there are one or more plaques causing marked narrowing of certain arteries, the physician may



Balloon dilation



Artery with stent

perform balloon dilation (or angioplasty), usually with insertion of a stent. If there are too many plaques and/or if these cannot be readily accessed by angioplasty, the medical team (after discussion with your cardiologist) will tend to opt for surgical treatment, i.e. coronary artery bypass.

Coronary artery surgery (balloon angioplasty with insertion of stents) is usually performed immediately after the diagnostic procedure (coronary angiography). This treatment takes place in a specialized unit, during a short hospital stay.

Possible complications

You may experience chest pain during angioplasty.

If a clot becomes loose, an artery is injured or any other complications arise, further angioplasty, or even coronary artery bypass may be performed.

After the procedure

You may eat and drink upon returning to your room.

- If the femoral artery is punctured, a compressive dressing is applied, and you will not be able to stand or bend your leg for 4-6 hours.
- If the radial artery is punctured, a compression bracelet is applied for a total period of 4 hours. It is important not to lift anything with the arm for 24-48 hours. Driving (a car with a manual gearbox) is not recommended for 24 hours to avoid bleeding at the puncture site.

OUR HOSPITAL SITES AND MEDICAL CENTRES

OUR HOSPITAL SITES



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