

Care For Angiogram With Stent

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Angiogram

An angiogram is an X-ray imaging technique to visualize the blood vessels used to diagnose and treat a cardiac patient. An angiogram is considered the gold standard for estimating the arteries and veins for the regular flow of blood inside the heart and other parts of the body. During the injection, an angiogram is used to determine obstacles in the arterial blood flow system through the X-ray technique. Once the blockage is identified, it provides information that helps the surgeon to determine for best treatment option, such as angioplasty. An Angiogram is typically carried out while the patient is in drowsiness, and the process duration lasts almost one hour. It may be longer if the treatment is decided in the same settings in critical condition. In addition, the local anesthetic is used for patient sedation, but there is no need to go to sleep. Mostly angiogram is used to identify flow at the coronary angiogram (arteries near the heart), Pulmonary angiogram (lungs), cerebral angiogram (brain), carotid angiogram (head and neck), Peripheral (legs or arms), and aortogram (the aorta) (Saw, J., 2014).

Procedure

A special dye and camera are used in an angiogram procedure to take a picture of blood flowing in an arterial system. During the procedure, a Catheter (a thin tube) is placed into a blood vessel in the groin or just over the elbow. This thin tube guided to the area to be examined. Then a special dye (Iodine dye as contrast material) is injected into the vessels to observe clear area on the X-Ray image. This is the angiogram process. An angiogram finds an aneurysm in blood vessels and can see a narrowing or any blockage in the arterial system that affects the flow of blood. An angiogram can clearly show coronary artery disease existing and the severance of the disease (Tonino et al. 2010).

Why People Go Angiogram

Generally, an angiogram is the most common part of the heart catheterization procedure. An angiogram is carried out to identify the blood flow problem in vessels. In the following patient's condition angiogram was carried out, such as heart failure, aortic stenosis, an irregular heart stress examination, recent heart attack, angina for the first time, and atypical chest pain. Patients who undergo other tests that are normal have heart surgery and are at high risk for coronary artery diseases and unstable angina, which does not go away as quickly or more frequently at rest in severity (Mehra et al. 2010).

Role Of Nurse For The Angiogram

As in all surgical protocols, there is a requirement for full attention and concentration for the surgery. Therefore, appropriately trained and experienced registered nurse plays a vital role for the interventional surgery team. Furthermore, the registered nurse has the account with the additional responsibility of caring for the anxious patient. The procedures are performed in emergent, planned or rescue situations (Mikosch et al., 2010). Over past decades, technological progress, adjuvant treatments and novel indications for stenting have increased the need for registered nurses with expertise. Preparation before the procedure of angiogram nurse enthusiastic and endorsing efficient, safe and operational nursing care through nurturing a mesosphere encouraging exposed communication, problem explaining and group work establishment with the patient as well as the other staff members of the catheterization labs. Nurse performance in angiogram to reduce anxiety and attain his/her trust and cooperation for the overall process of cardiac catheterization (Warnock, C., Tod, A., Foster, J. and Soreny, C., 2010).

The pre-procedure step involves identifying the person helping with hand hygiene and following the surgeon's order regarding food, labs, fluid, lab and preparation of the site prior to the procedure of angiogram. It is the doctor's role to describe the process of the coronary angiogram method to patients. However, the registered nurse's role is to assess and make significant changes to others or the patient. Already, developed a complete understanding of the angiogram and the procedure performance. However, if the patient and others still have significant hesitations, questions, concerns, and doubts, then refer them to their attending surgeon for further clarification. So, as a registered nurse, check guidelines before the procedure starts (Auyeung, V. et al. 2011).

Patient Education

Before the cardiac patient undergoes an angiogram, a pre-cardiac catheterization patient teaching plan must be developed and originated. This cardiac angiogram teaching plan must be personalized according to the cardiac patient's requirements. As part of the education plan, the cardiac patient should visit the cardiac catheter laboratory along with the cardiac ward nurse. The registered nurse should introduce herself and advise the patient at what time the technique may occur to the patient and his family. Registered nurses in the cardio ward should evaluate the patient and family awareness as well as the understanding of the process. In addition, delivers additional information as the requirement to satisfy the person and family (Farahani, M.A, et al 2011).

In order to prepare the patient mentally for the technique, briefly, describe the procedure of angiogram and what will be situation and feeling of the patient in the catheter lab during the process. The procedure takes 1 to 2 hours to complete, and meanwhile patient will be conscious due to local anesthesia. When a dye is injected, the patient realizes the metallic taste and sensation of a hot flash (warmth). Furthermore, some heartbeat skipped or rapid pulse is expected during the procedure

generally. A good understanding of the angiogram procedure and anticipated perception lessens nervousness and increases cooperation and trust of the cardiac patient during the procedure (Rawson, K.A., O'neil, R. and Dunlosky, J., 2011).

Register nurses in the cardiac ward deliver routine pre-procedure care as ordered in the following manner, which is part of the teaching plan. The Registered nurse needs to check the patient chart for per angiogram orders. Signed informed consent from the patient and explain what is written in it such as this is the legal requirement for a procedure. In this document, all tests, treatments or protocols are documented as needed according to the patient's health issue. As a Registered cardiac nurse, develop the patient's understanding of what will be done and make decisions based on your desire. Further explanations include that it is permission from your side to the surgeon to start and continue the procedure of medical care. (Qaseem, A. et al. 2012). If the patient is not able to sign, then the cardiac registered nurse signs the informed consent from the other blood family member of the patient. Before signing an informed consent, a nurse must teach and inform the patient and his family about the risks and benefits of the technique. The patient makes sure to obtain all answers to the questions from the cardiac nurse in a very good environment. Other pre-angiogram procedures include blood tests, chest X-rays, circulation monitoring and a Foley catheter and heart monitor (McEvoy, J.W et al. 2011).

Pre-procedure fasting was carried out to monitor the patient's diet with the help of his family. Suggested cardiac medications are administered with a small sip of water except contraindicated. During the procedure, to prevent dysrhythmias or cardiac compromise, regularly prescribed medicines are continued. Nurses assess for hypersensitivity to radiologic contrast media such as iodine or any food allergy as seafood. Because an angiogram, typically radiologic contrast dye which is iodine, is used for the procedure.(Morton, P.G., et al 2017). The risk of anaphylaxis increases due to iodine or seafood allergy and needs an alternative dye with a special precautionary measure. The nurse must record baseline assessment data of the patient, such as the vital signs, height, and weight. The nurse must mark the locations of peripheral pulse points and their amplitude and equality documented. The data deliver a standard for evaluating variation after a procedure (Ryu, M.J., Park, J.S. and Park, H., 2012). The nurse must advise avoiding it before going to the cardiac catheterization laboratory for the angiogram to promote comfort to the patient. All documentation of the cardiac patient, such as patient education and pre-procedure evaluation, should be the dead end of a patient clinical record. A pre-catheterization policy or checklist is established as they do for the cardiac patient undergoing expected surgery in each institution.

Post-Procedure Care

After every 15 minutes for the first hour, a cardiac registered nurse should evaluate the vital signs, peripheral pulses, neurovascular status and catheterization placement point for bleeding. Then, in these steps, a nurse should monitor every 30 minutes for the next hour and subsequently follow up hourly for four hours or until patient discharge. All patient-monitored data was recorded through a

registered cardiac nurse. The data give crucial evidence about the patient's condition and impending complications such as hematoma, hemorrhage, or thrombus development (Hamon, M., Pristipino et al. 2013).

According to suggested instructions by a surgeon, if a femoral artery is used, a nurse must provide care for a patient by maintaining bed rest normally for 6 hours. Moreover, 2 or 3 hours of bed rest should be maintained in case of the brachial location used. The head of the bed may be elevated to the extent of 30 degrees because patient bed rest minimizes the movement of and resultant pressure in the affected artery (Ryu, M.J., Park, J.S. and Park, H., 2012). These also support to reduce the risk of hematoma and bleeding. The nurse should retain a compression dressing, ice pack, and sandbag in place above the arterial contact location. In addition, to nurse must monitor frequently for hemorrhage in case the entrance point is in the groin area and also monitor below the buttock bleeding. As the high-pressure system is present in arteries so, ultimately, a significant bleeding risk is expected after an invasive practice (Rao, S.V. et al. 2010).

For 12 to 24 hours, a nurse must follow the instructions to avoid hyperextending and flexing the affected extremity. Therefore, reduced movement of the affected joint permits the artery to effectively seal and improve blood flow, minimizing the risk of hemorrhage, thrombus development, and hematoma. The nurse should promote the liberal fluid intake unless not contraindicated by a surgeon or as per instruction. Excessive fluid intake increases the excretion of the injected contrast medium dye. In order to reduce the risk of toxicity, particularly to the kidney, health promotes urination (James, M.T. et al. 2011).

As the nurse monitors the condition of the patient, if she observes diminished peripheral pulses, enlargement of an existing and formation of the new hematoma, critical discomfort at the entry point or in the pretentious extremity, dyspnea, or chest pain. The nurse promptly reports to the consulting doctor for further instructions to reduce the chance of complications. If there is a low risk for complication in such situations as insertion place or myocardial infarction, complication occurs. These requirements promote intervention placement. Furthermore, registered cardiac nurses must give proper guidance and instruction regarding dressing changes and potential complications prior to discharge and follow-up appointments (Olin, J.W. et al. 2010).

Post-Procedure Education

The cardiac registered nurse must educate the patient about post-care of the angiogram with the stent. Normally angiogram is a safe technique with minimal complication. The nurse teaches the patient that if the patient experiences any unusual findings after having the angioplasty. The patient should immediately inform the nurse about a situation because some side effects must to treated in time to avoid complications. In the following condition, the patient should take prompt action, such as if there is extra bleeding from the point of the catheter entrance. After an angiogram, a little bit of blood is normal, but if the bleeding is persistent or can't be stopped with minor strapping,

furthermore, if the patient notices that there is redness or pain with swelling at the place of catheter insertion. Minor pain usually happens after an angiogram procedure, but this pain becomes problematic when the site of a catheter is very painful, associated with redness and swelling (Hiratzka, L.F. et al. 2010).

After discharge from the hospital, a nurse must teach about the subsequent care for recovery from the angiogram with the stent. Furthermore, the nurse educates that the patient is essential to continue relaxing for almost a week or more. If the patient also had other serious health issues or cardiac problems, then needs to rest for a prolonged time as the patient can recover from the procedure. The patient avoids walking upstairs for the week after the angiogram in case of catheter insertion into the patient's groin area. In addition, the patient escapes any heavy weight lifting or other vigorous actions for at least the first couple of days. After the angiogram with the stent procedure, the Patient should not drive for almost two weeks or more. He can and should not take a bath after 24 hours of the procedure. The Registered cardiac nurse should advise the patient to take plenty of water to drink to promote the excretion of toxic radiology material from the body system (Weeks, B.P. and Nilsson, U., 2011).

Registered nurse should advise patient about the prescribed medication and their proper order of dosage administration. The nurse assured that her patient's understanding fully developed about his drug dosage and related precautions for the avoidance of complications and interactions. Furthermore, the nurse instructs for strict adherence to his medication for a speedy recovery. The nurse educates the patient to keep an ice pack on the catheter insertion location to relieve swelling and pain. In addition, the instruction that ice packs should not be kept for more than 20 minutes at a time along with over-the-counter pain reliever. Therefore, nurses should educate the patient about the expected lifestyle and eating changes. The patient needs specific changes depending upon the angiogram with the stent procedure. Generally, if a patient is a smoker, then the patient quit smoking, will get regular exercise, reduce weight in case of obesity and remain as stress-free as he can (Hamon, M. et al. 2013).

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