

TransArterial ChemoEmbolicisation (TACE) for Liver Tumours

Introduction

This leaflet tells you about the procedure known as TransArterial ChemoEmbolicisation (TACE); it explains what is involved and what the possible risks are. It is not meant to be a substitute for informed discussion between you and your doctor, but can act as a starting point for such a discussion.

If you are having the procedure performed as a pre-planned operation then you should have plenty of time to discuss the situation with the consultant radiologist and the consultant who referred you for the procedure. If you need the procedure as a relative emergency then there may be less time for discussion, but nonetheless, you should have had sufficient explanation before you sign the consent form.

What is TACE?

The best way of describing what TACE is, is to explain what the letters stand for.

TA is for TransArterial. This means that the radiologist will put a fine, hollow needle into an artery, usually the common femoral artery in the groin. Through this needle he, or she, will pass a fine, thin wire in a straight line until it reaches the arteries supplying your liver. Over this wire the radiologist will pass a fine plastic tube called a catheter.

CE is for ChemoEmbolicisation. The radiologist will advance the catheter into the arteries supplying the liver and inject a dye to outline the vessels and the blood supply of the tumour. The radiologist will then inject some small beads

into the small arteries feeding the tumour. These beads not only block the artery denying the tumour an oxygen supply but they also contain chemotherapy which is at a high concentration inside the tumour. The combination of the chemotherapy and lack of blood supply cause the tumour to shrink over time. It is usually a procedure to control tumour growth (palliative) rather than a curative treatment.

Why do I need a TACE procedure?

Primary tumours of the liver are called hepatocellular carcinoma. These tumours have a rich blood supply which comes almost exclusively from the hepatic arteries (and not the portal vein). Tumours can be treated by a number of techniques including surgery, thermal ablation and chemoembolicisation.

Chemoembolicisation works by starving the blood supply to the tumour and depriving it of oxygen (the embolicisation part) and also delivering very high concentrations of chemotherapy at the same time loaded in the beads. Little of this chemotherapy gets into the blood stream and therefore reduces unwanted side effects.

What are the options or alternatives?

The alternatives for treating your cancer include chemotherapy, radiotherapy, local ablation, TACE and surgery.

Who has made the decision?

The doctors in charge of your case, and the radiologist performing the TACE, will have discussed the situation and feel that this is the best option. However, you will also have the opportunity for your opinion to be taken into account and if, after discussion with your doctors you do not want the procedure carried out, you can decide against it.

Who will be performing the TACE?

A specially trained doctor called an interventional radiologist will perform the TACE. Interventional radiologists have specialist expertise in using X-ray and scanning equipment and also in interpreting the images produced. They need to look at these images while carrying out the procedure.

Radiographers and radiology nurses will be present in the room to assist during the procedure, they will introduce themselves at the start of the procedure.

Occasionally student radiographers or medical students will be present to observe the procedure.

Where will the procedure take place?

The procedure will take place in the Medical Imaging Department.

How do I prepare for TACE?

- You need to be an inpatient in the hospital.
 - You may receive a sedative to relieve anxiety, as well as an antibiotic.
 - You will have had some blood tests performed before the procedure to check that you do not have an increased risk of bleeding.
 - You are asked not to eat for 4 hours prior to the procedure. You may drink a little water.
 - You will need someone to drive you home and to look after you for 24 hours.
 - You should be prepared to stay overnight if necessary.
- If you have any allergies or you have previously reacted to intravenous contrast medium, you must let the doctor know. Intravenous contrast medium is the injection we give you during some scans.
 - If you are diabetic, please contact the Medical Imaging Department on **01392 402336 selecting option 2, in-patient enquiries, option 6 for Special Procedures (Interventional)**.
 - If you normally take any medication to thin your blood (anticoagulation or antiplatelet drugs) such as: **warfarin / clopidogrel / aspirin / non-steroidal anti-inflammatory drugs (NSAIDS / brufen / ibrufen / nurofen) / dabigatran (Pradaxa) / rivaroxiban (Xarelto) / Apixaban (Eliquis) / phendione / acenocoumarol** – then these may need to be stopped or altered. Please seek the advice of your hospital consultant or nurse specialist as soon as possible, ask your GP, or contact the Medical Imaging Department on **01392 402336 selecting option 2, in-patient enquiries and then option 6 for Special Procedures (Interventional)**.
 - After discussion with your GP or referring clinician, and you can safely stop these medications it is recommended that:
Warfarin is stopped 6 days prior to your procedure
Aspirin is stopped 7 days prior to your procedure
Clopidogrel is stopped 7 days prior to your procedure
NSAIDS are stopped 2 days prior to your procedure
Rivaroxaban (Xarelto) and Apixaban (Eliquis) are stopped 2 days before your procedure.
If you are taking Dabigatran (Pradaxa) please consult your doctor or contact the Medical Imaging Department on **01392 402336 selecting option 2, in-patient enquiries and then option 6 for Special Procedures (Interventional)**.
 - Other medication should be taken as normal.
 - A pregnancy test may be performed on arrival.

What actually happens during a TACE?

You will be taken down to the Medical Imaging Department on a trolley. You need to have a needle put into a vein in your arm or hand, so that you can have intravenous sedatives or painkillers. Once in place, this needle does not hurt.

In the Medical Imaging Department the radiologist and other trained staff, will make certain that you are sedated if appropriate. You will be monitored throughout the procedure and given oxygen. The interventional radiologist will keep everything sterile, and will wear a theatre gown and operating gloves.

The skin of your groin will be cleaned with antiseptic and the rest of your body will be covered with a theatre towel. Some local anaesthetic will be injected in the groin to numb the area such that the catheter can be inserted.

The radiologist will then advance a catheter via the groin artery into the small arteries supplying your liver tumour(s). He/she will then inject the tiny beads loaded with chemotherapy into these vessels supplying the tumour. You should not feel this happening.

Will it hurt?

You will feel the local anaesthetic being injected which will feel like a bee sting. After that you should not feel anything.

There will be a nurse, or another member of staff, standing next to you and looking after you. If you are aware of any pain, then you can let them know, and they will arrange for you to have more painkillers or sedatives through the needle in your arm.

How long will it take?

Every patient's situation is different and it is not always easy to predict how complex or how straightforward the procedure will be. It will take between 1 and 2 hours.

What happens afterwards?

The catheter will be removed and a nurse will press on your groin for 10-15 minutes to stop the bleeding. You will then be taken back to your ward on your bed. You may have a closure device (suture) inserted to plug the small hole in your artery. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no untoward effects, as well as to check the puncture site. You will generally stay in bed for a several hours until you have recovered. You should expect to stay overnight, please bring your medication and an overnight bag.

Once you have recovered from the procedure, you will probably feel no different than you did before. Some people experience a flu like illness (post embolisation syndrome) for a few days after the procedure.

What will happen to the results?

A report of the procedure will be recorded on your electronic patient record immediately for review by your specialist.

Is TACE permanent and what happens next?

The TACE procedure hopefully will reduce the size of your tumour. The hepatologist looking after you will carry out some blood tests afterwards to monitor how effective the treatment has been. Also a CT scan will be performed 6 weeks after the procedure to see if the tumour has any remaining blood supply - if it has a second or third treatment may be required.

Are there any risks or complications?

TACE is a complicated procedure. Generally it is safe and carried out without significant side effects, you are carefully monitored by the radiologist and other trained staff. However, there are some risks and complications that can arise, as with any medical treatment. Perhaps the biggest problem is liver failure. This is an

unusual but serious complication and very rarely can cause death. If the tumour and some surrounding liver die it is possible that a liver abscess may form which requires a drainage procedure under local anaesthetic. Immediately after the procedure you may develop a post embolisation syndrome for a few days which is self-limiting and feels like flu.

Accurate placement of the beads is sometimes difficult. Rarely some of the beads can block off an artery supplying the stomach, pancreas or gallbladder (non- target embolisation) causing pancreatitis, cholecystitis or gastritis (inflammation of the pancreas, gallbladder or stomach).

You may experience some bruising and soreness where the catheter was inserted in to the artery in your groin.

Finally...

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Do satisfy yourself that you have received enough information about the procedure, before you sign the consent form.

Contact us

If you found reading your leaflet difficult, you do not understand what it means for you and if you have any queries or concerns you can contact us on: 01392 402336 and we can talk it through.

How to get to the Royal Devon & Exeter Hospital at Wonford

Please refer to the enclosed "Welcome to the Medical Imaging Department" leaflet or use the Trusts website for the latest information:

www.rdehospital.nhs.uk/patients/where

For more information on the Medical Imaging Department, please visit our website:

www.rdehospital.nhs.uk/patients/services/medical-imaging

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