

Use of photodynamic therapy to treat inoperable cholangiocarcinoma patients to relieve biliary obstruction

光動力治療對膽管癌病人的舒緩性治療

Introduction

Cholangiocarcinoma is malignancy of the biliary tree. The only curative method is major liver resection and bile duct resection. However, only small number of patients is suitable for operation. Most of them are not operable and suffered from obstructive jaundice. Currently, inoperable patients relied on palliative stenting. However, the tumor progressively growing and a time will eventually reach when stenting cannot help the patient. This treatment uses photodynamic therapy (PDT) (use of photosensitizer and 630nm laser) to kill tumor cells and maintain luminal patency.

This PDT treatment is a potentially powerful palliative treatment method for cholangiocarcinoma. Patient who has cholangiocarcinoma found to be inoperable with good performance status and being able to follow the instructions of photosensitizer precautions is suitable for this therapy.

A specific area can be treated by the combination of photofrin (photosensitizer) absorbed into the tissues and red light emitted from a laser fiber directly to an area of disease tissue.

The procedure

Your Photofrin injection

Before you have your laser treatment you will need to attend the day surgery unit/in patient care for your photofrin injection, usually one to three days before your laser treatment. This will take approximately two hours.

The amount of the drug you are given is calculated according to your weight. You will be given the drug intravenously (straight into a vein via a cannula). The effect of this drug is immediate and will make you sensitive to DAYLIGHT for approximately 6 weeks. Therefore certain precautions have to be taken to prevent severe sun burn symptoms.

- You should bring a hat and sunglasses with you.
- You should cover up as much skin as possible e.g. Wear long sleeves and trousers
- It is preferable not to drive yourself for your appointment. You will need to avoid exposure to direct light as much as possible, especially in the car on your journey home.
- You will be advised to buy high SPF value sun cream, which should be applied to

any exposed skin. This is available on prescription.

- When at home do not sit near a window. On going outside take all of the above precautions. This will assist you to prevent getting burnt. Remember you need to take these precautions for 6 weeks, even if it is not sunny, it is daylight you are sensitive to.

Your Laser treatment

You will attend day surgery unit two days following your photofrin injection for your laser treatment. Laser (630nm) will be shined over the lesion with diffuser fiber via either percutaneous route or by endoscopic route. You will be given the treatment under sedation or monitored anaesthesia (MAC) or a short general anaesthesia. The majority of patients are well to go home the same evening.

After the procedure

The doctor will see you in the ward following your procedure. Your nurse will tell you when you are ready for discharge. Remember to reapply your sun cream and take all the necessary precautions prior travelling home

Risk

- Inadequate protection can lead to severe sun burn.
- Patient may be hypersensitive to photosensitiser.

Preparation before the procedure

According to usual preparations for GA/MAC endoscopic/ choledochoscopic procedure.

Care after the procedure

After injection of photosensitiser, the patient needed to be protected from direct sun light by long sleeve shirt, wearing hat and sun glass. High SPF value sun screen is needed. The photosensitiser period may last up to 6 weeks' time.

Follow up

At 6-8 weeks, you will be admitted for reassessment procedure for luminal patency. Depending on the route of assess you originally have, either exchange of Percutaneous Transhepatic Biliary Drainage (PTBD) plus cholangioscope or

endoscopic retrograde cholangiopancreatography (ERCP) will be performed. Then you will be followed up on regular basis. Afterwards, as in other palliative care of inoperable cholangiocarcinoma patients, the PTBD catheter or internal stent will be changed if blocked.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor.