

## 動脈化療栓塞法 (TACE)

### 簡介

肝動脈化療栓塞法(TACE)是一種局部化療，適用於無法手術切除的肝癌；亦適用於術後肝轉移及局部復發。某些肝癌經動脈化療栓塞治療後，腫瘤縮小，可能重獲手術切除的機會。

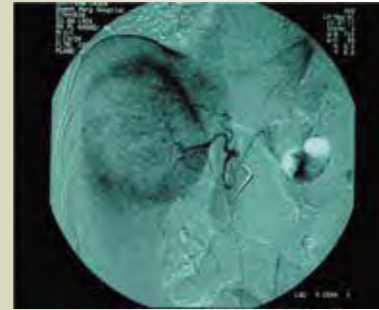


圖一 導管經股動脈進入肝動脈

- ◆ 肝動脈化療栓塞法是利用局部注射化療藥物(Cisplatin+Lipiodol)增加腫瘤區化療藥物的濃度，殺死腫瘤細胞，降低化療藥物的副作用
- ◆ 然後用一種海棉(Gelfoam)施行血管栓塞，切斷腫瘤營養和氧的供應，使腫瘤壞死，從而抑制腫瘤的生長
- ◆ 亦可使用一種局部注射化療藥物 (Doxorubicin eluting bead)，但有可能會有較多副作用。

療程約隔2至3個月一次，須住院進行。治療的次數取決於腫瘤對藥物的反應和副作用的嚴重性而定。整體而

言，腫瘤體積縮小的機會為50%。如腫瘤太大或者屬於多發性，療效會較差。而腫瘤完全消失則較為罕見。



圖二 血管造影劑顯示肝右葉有癌病變

### 準備

- ◆ 提前一天住院檢查血常規、凝血功能和肝腎功能
- ◆ 若血小板缺乏或凝血功能不良，需作適量補充
- ◆ 注射預防性抗生素
- ◆ 治療前六小時禁食
- ◆ 簽署治療同意書

### 治療過程

- ◆ 由放射治療科醫生操作進行
- ◆ 局部麻醉，有時需靜脈滴注鎮靜劑
- ◆ 在影像引導下，導管經股動脈，進入肝動脈，此時注射造影劑，顯示肝動脈分佈
- ◆ 確定供應腫瘤的動脈後，注入化療藥物 (Cisplatin+Lipiodol)
- ◆ 如肝功能或導管位置不理想，不可用 Gelfoam 封塞

- ◆ 最後拔出導管，加壓止血

### 治療後護理

- ◆ 臥床休息
- ◆ 傷口加壓止血
- ◆ 服用抗生素和抑制胃酸分泌藥物，預防感染，減少消化道潰瘍的機會
- ◆ 若出現上腹疼痛和發燒，可用退熱止痛劑緩解症狀
- ◆ 治療後第二天做肝腎功能檢查
- ◆ 大部分患者可於治療後第二天出院，唯有少數病人因併發症需繼續住院接受治療

### 併發症

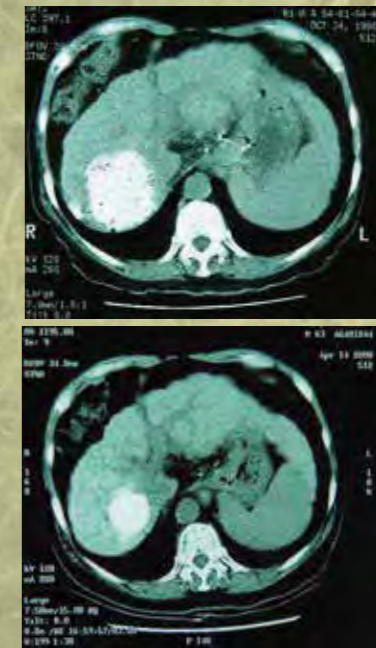
- 胃痛及發燒是很常見，可以服藥紓緩，約有20%病人可能有較嚴重的併發症，包括：
- ◆ 插管造成的出血、血腫、血栓
  - ◆ 較少見的併發症有急性膽囊炎、急性胰腺炎、肝腎功能衰竭、肝膿腫、消化道潰瘍和出血等，甚至死亡
  - ◆ 假如病人有肝功能惡化或嚴重併發症，必須停止治療

如有任何查詢，請聯絡你的主診醫生


以上資料由瑪麗醫院外科部提供。



瑪麗醫院  
Queen Mary Hospital



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# TRANSARTERIAL CHEMOEMBOLIZATION (TACE)

## Introduction

Transarterial chemoembolization (TACE) is a regional treatment for inoperable hepatocellular carcinoma (HCC). It is also indicated for patients with recurrence of tumor in the liver after previous surgery for hepatocellular carcinoma. In some patients with critically inoperable tumor, the tumor size may shrink after repeated sessions of TACE and thus becomes operable.



Picture 1.  
Catheter inserted  
through femoral artery  
into hepatic artery

- ◆ TACE involves regional injection of chemotherapy drugs (Cisplatin + Lipiodol) into the blood vessels that feed the liver tumor. With a high concentration of drugs in the tumor area, the treatment effect on the tumor cells is enhanced and the side effects of the chemotherapy drugs are reduced
- ◆ Gelfoam (a kind of medical sponge) is used to block the feeding blood vessels of the tumor and to deprive nutrient supply to the tumor cells. This also causes tumor cell death and suppresses tumor growth
- ◆ A new technique of TACE is to use Doxorubicin eluting bead, which may be more effective than conventional

Cisplatin + Lipiodol TACE. However, it may have more side effects

The treatment is repeated every two to three months. The patient generally stays in hospital overnight. The number of treatment sessions depends on the response of the tumor and whether serious side effects are seen. The overall response rate of the tumor to this treatment is about 50%. The tumor response rate is lower for larger tumors and multiple tumors. However, complete disappearance of the tumor is rare.



Picture 2.  
Angiogram showing  
a large right lobe HCC

## Preparation

- ◆ Before the procedure, blood tests need to be performed to check the liver function, blood count and the clotting profile
- ◆ Patients with low platelet count or clotting problem may require transfusion of platelet concentrate or fresh frozen plasma before the procedure
- ◆ Prophylactic antibiotics will be given before the procedure
- ◆ Fasting for 6 hours before the procedure
- ◆ A written consent is required

## Procedure

- ◆ The procedure is performed in the radiology department by a radiologist under local anaesthesia, with sedation if necessary

- ◆ The femoral artery in the groin will be punctured with a catheter, and the catheter will be manipulated into hepatic artery under imaging guidance
- ◆ Contrast will be injected during the procedure to visualize the arteries
- ◆ After the catheter is placed into the target artery that feeds the tumor, a mixture of chemotherapeutic agent dissolved in Lipiodol is injected, followed by injection of gelfoam
- ◆ In some cases, the treatment may not be performed if the liver function is unfavourable or if the catheter position is unfavourable
- ◆ After the procedure, the catheter is withdrawn, and the groin wound is compressed to stop bleeding from the artery

## Care and Advice

- ◆ Bed rest to avoid bleeding from the artery puncture site
- ◆ The puncture site in the groin will be observed regularly for any bleeding, which can usually be controlled by compression
- ◆ Upper abdominal pain or fever are commonly experienced and analgesics/antipyretics will be given if necessary
- ◆ A course of antibiotics to prevent infection, and a course of medication to minimize the chance of peptic ulcer will be given
- ◆ Blood tests will be performed the next day to check the liver function
- ◆ Most patients can be discharged the next day but some patients may have to stay

longer because of complications

## Complications

Epigastric pain and fever are very common side effects of the procedure, but they will usually subside with medications. About 20% of patients will develop more severe complications which include:

- ◆ Complications related to femoral artery puncture and catheterization of hepatic artery: bleeding, blood clot, dissection or thrombosis of artery, impairment of blood supply to the lower limb
- ◆ Uncommon complications related to chemoembolization: liver failure, kidney failure, infection, liver abscess, rupture of tumor, peptic ulcer, gastrointestinal bleeding, acute cholecystitis, acute pancreatitis, pancytopenia related to chemotherapy
- ◆ The majority of patients with complication will recover with appropriate treatment, but the complications can be life threatening in some cases. Patients who develop severe complications or significant deterioration of liver function have to stop the treatment

Should you have any queries, please consult your doctor-in-charge

Information provided by the Department of Surgery, Queen Mary Hospital.