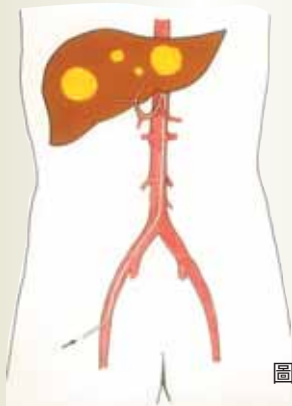


## 動脈化療栓塞法 (TACE)

### 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
- 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，可以服藥舒緩，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
  - ◆ 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
  - ◆ 大部份病人可以治癒，假如病人有肝功能惡化，必須停止治療

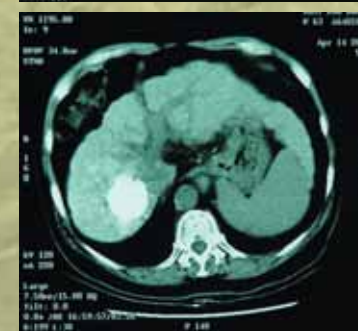
如有任何查詢，請聯絡你的主診醫生

以上資料由瑪麗醫院外科部提供。



## 動脈化療栓塞法

### TRANSARTERIAL CHEMOEMBOLIZATION (TACE)



麥理浩復康院  
MacLhose Medical Rehabilitation Centre

TWGHs  
東華醫院  
Tung Wah Hospital  
東華三院馮克敏醫院  
Fung Yiu King Hospital

根德公爵夫人兒童醫院  
Duchess of Kent Children's Hospital

# TRANSARTERIAL CHEMOEMBOLIZATION (TACE)

## Introduction

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



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 cytotoxic effect on the tumor cells is enhanced and side effects of the chemotherapy drugs are reduced
  - ◆ Gelfoam (a kind of sponge) is used to block the feeding vessels of the tumor and deprive nutrient and oxygen supply to the tumor cells. This also causes tumor cell death and suppresses tumor growth
- The treatment is repeated every two to three months. The patient generally stays in the 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 a larger tumor and multiple tumors. 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 assess the liver function, complete blood count and the coagulation profile
- ◆ Patients with low platelet count or clotting deficiency 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 radiological department by an interventional radiologist under local anaesthesia, with intravenous sedation

if necessary

- ◆ The femoral artery in the groin will be punctured with a catheter, and the catheter will be manipulated into the hepatic artery under imaging guidance
- ◆ Contrast will be injected during the procedure to visualize the arteries
- ◆ After the catheter is manipulated into the target artery that feeds the tumour, a mixture of chemotherapeutic agent dissolved in Lipiodol is injected, followed by injection of gelfoam particles
- ◆ In some cases, embolization 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 with compression
- ◆ Epigastric pain or fever will be 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 test 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 for complications

## Complications

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

- ◆ Complications related to femoral artery puncture and catheterization of hepatic artery: bleeding, haematoma, dissection or thrombosis of artery, embolism of lower limb
- ◆ Complications related to chemoembolization: liver failure, renal failure, infection of necrotic tumor, 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 fatal in some cases. Patients who develop a severe complication or significant deterioration of liver function may have to discontinue the treatment.

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

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