

# *Transplantation hépatique orthotopique auxiliaire avec donneur vivant prélevé sous cœlioscopie*

**Pierre-Philippe Massault, Olivier Scatton, Bruto Randone,  
Denis Bernard, Filomena Conti, Yvon Calmus, Olivier Soubrane**

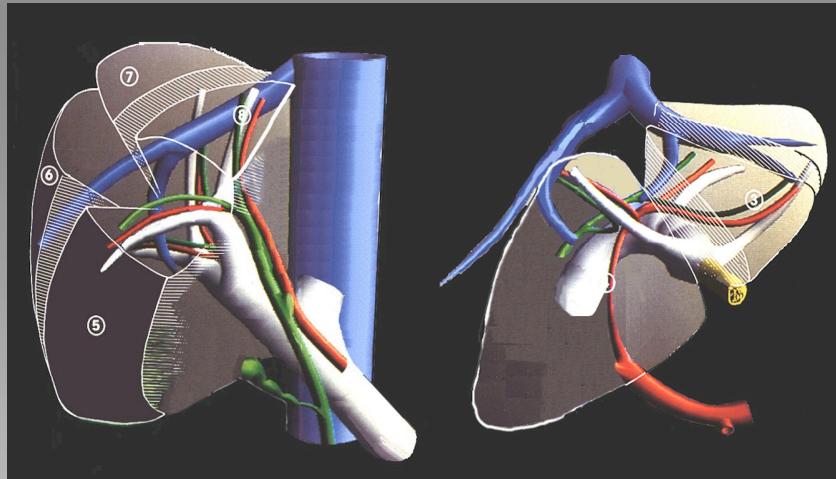
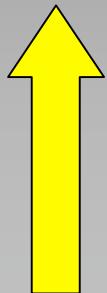
**Pôle médico-chirurgical d'Hépato-gastroentérologie  
Unités Cliniques de Chirurgie Hépatobiliopancréatique et de Transplantation Hépatique**



1988

## Bipartition

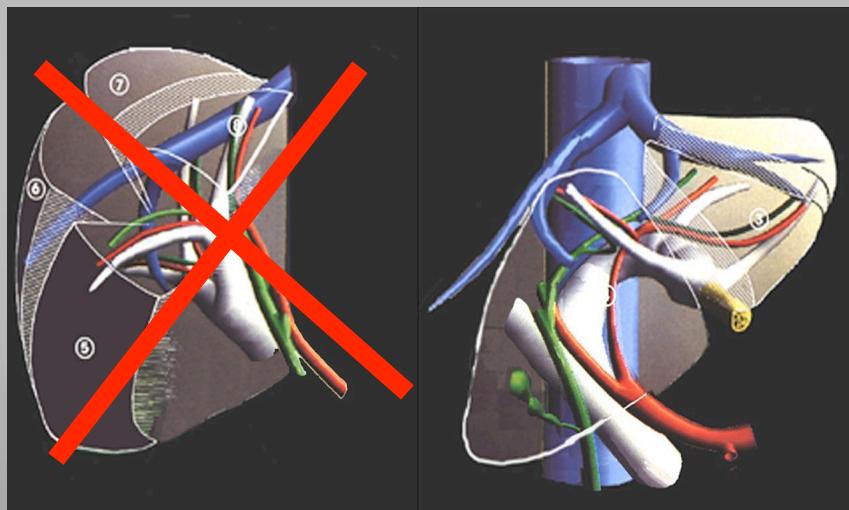
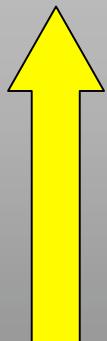
Pichlmayr, Ringe. *Langenbecks Arch Chir* 1988.  
Emond, Broelsch. *Ann Surg* 1990.  
Houssin, Couinaud. *BJS* 1991.



1984

## Réduction

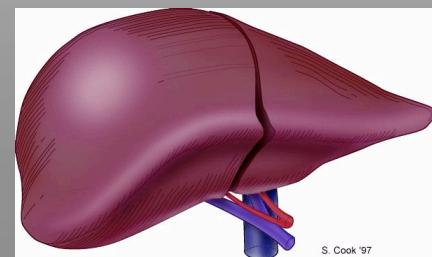
Bismuth, Houssin. *Surgery* 1984.  
Soubrane, Houssin. *J Am Coll Surg* 1994.



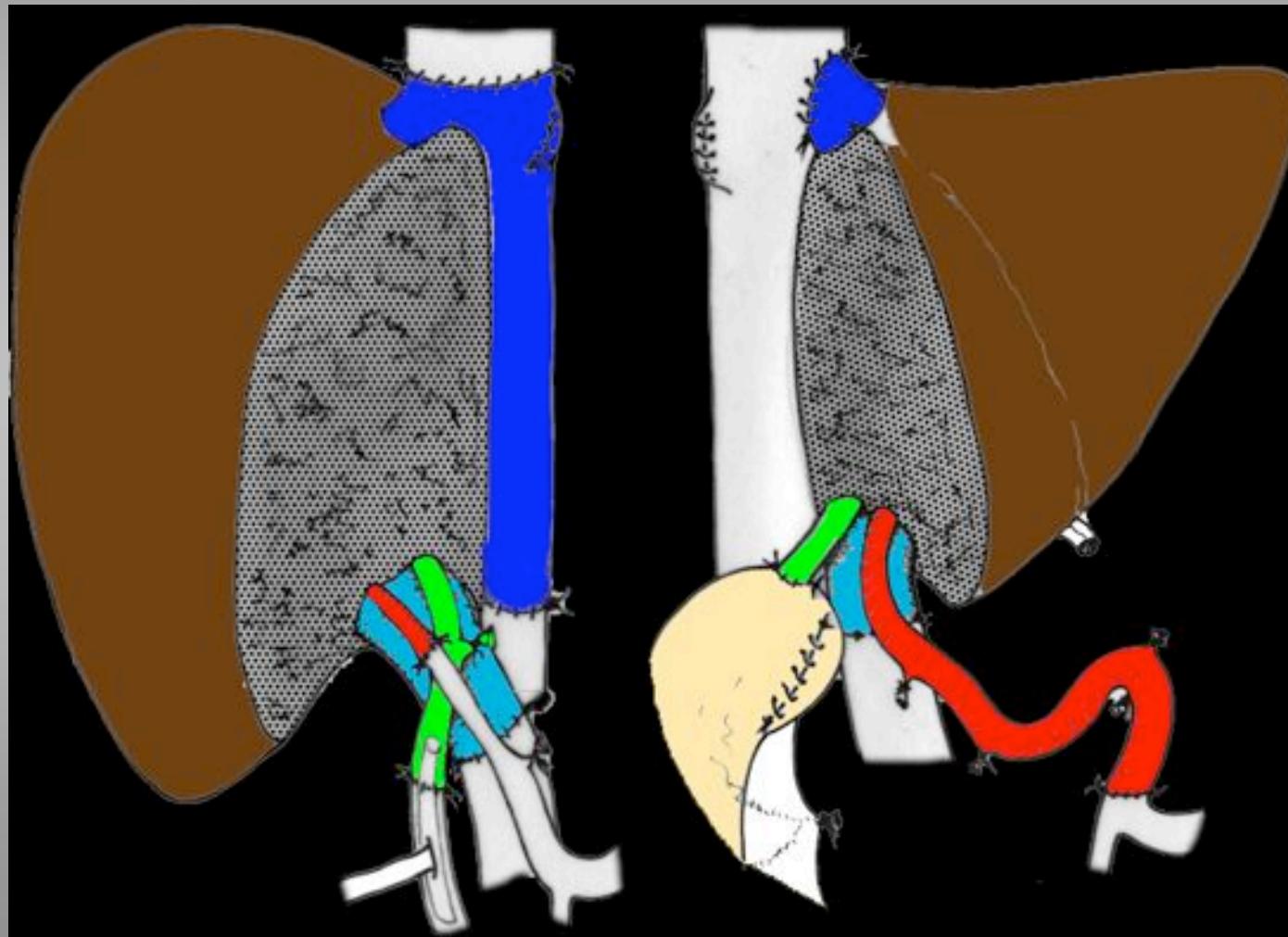
1963

## Foie entier

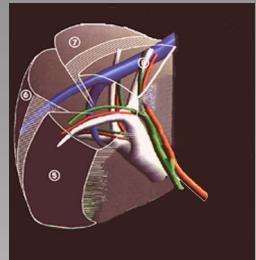
Starzl.



# Bipartition



1997



## Domino

Furtado A. *Transp Proc* 1997.

1995

1994

1991

1989

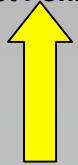
1988

1984

1963

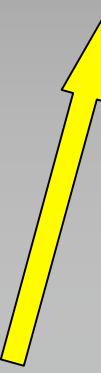
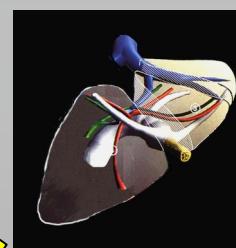
## Foie droit

Yamakoa. *Transpl*. 94.  
Boillot. *Chirurgie* 99.



## Donneur vivant Lobe G-Foie G

Raia. *Lancet* 1989.  
Strong. *New Eng J Med* 1990.



## Bipartition

Pichlmayr, Ringe. *Langenbecks Arch Chir* 1988.  
Emond, Broelsch. *Ann Surg* 1990.  
Houssin, Couinaud. *BJS* 1991.

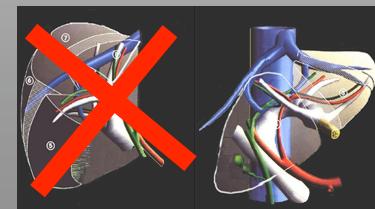
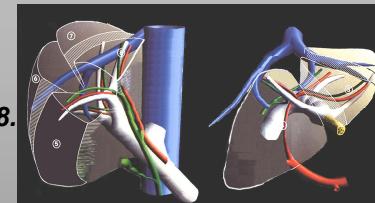


## Réduction

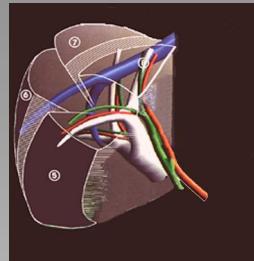
Bismuth, Houssin. *Surgery* 1984.  
Soubrane, Houssin. *J Am Coll Surg* 1994.

## Foie entier

Starzl.



1997



1995

1994

1991

1989

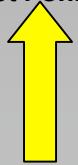
1988

1984

1963

### Foie droit

Yamakoa. *Transpl.* 94.  
Boillot. *Chirurgie* 99.

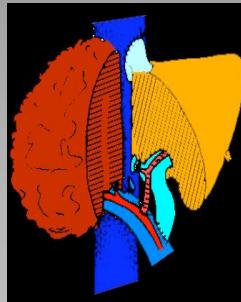


### Donneur vivant Lobe G-Foie G

Raia. *Lancet* 1989.  
Strong. *New Eng J Med* 1990.

### Domino

Furtado A. *Transp Proc* 1997.



### TH auxiliaire

Gubernatis. *World J Surg* 1991.  
Boudjema. *Lancet* 1993.

### Bipartition

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Emond, Broelsch. *Ann Surg* 1990.  
Houssin, Couinaud. *BJS* 1991.

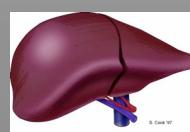


### Réduction

Bismuth, Houssin. *Surgery* 1984.  
Soubrane, Houssin. *J Am Coll Surg* 1994.

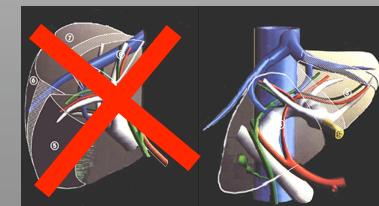
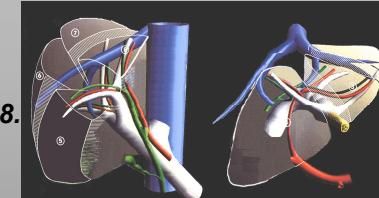
### Foie entier

Starzl.



### Bipartition in situ

Rogiers. *Transplantation* 1995.

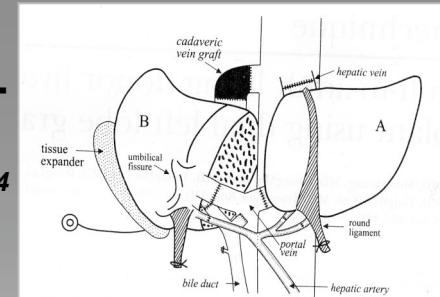


2002  
2001

**Prélèv. lobe G cœlio**  
*Cherqui, Soubrane. Lancet 2002.*



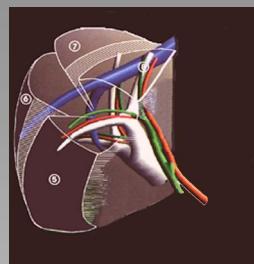
**Dual Adult LDLT**  
*Lee. Transplant Proc 2001  
J Gastrointest surg 2004*



1997  
1995  
1994

**Foie droit**

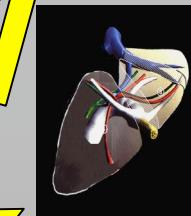
*Yamakoa. Transpl. 94.  
Boillot. Chirurgie 99.*



1991  
1989

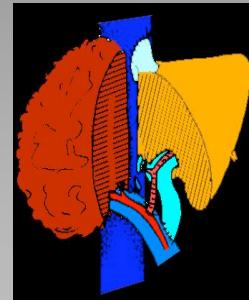
**Donneur vivant  
Lobe G-Foie G**

*Raia. Lancet 1989.  
Strong. New Eng J Med 1990.*



1988

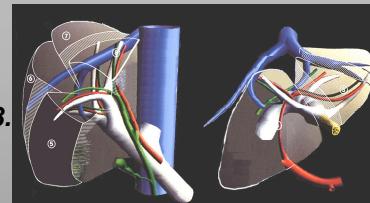
**TH auxiliaire**  
*Gubernatis. Worl J Surg 1991.  
Boudjema. Lancet 1993.*



1984

**Bipartition**

*Pichlmayr, Ringe. Langenbecks Arch Chir 1988.  
Emond, Broelsch. Ann Surg 1990.  
Houssin, Couinaud. BJS 1991.*

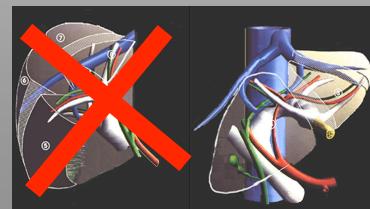
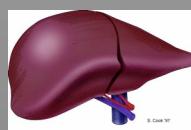


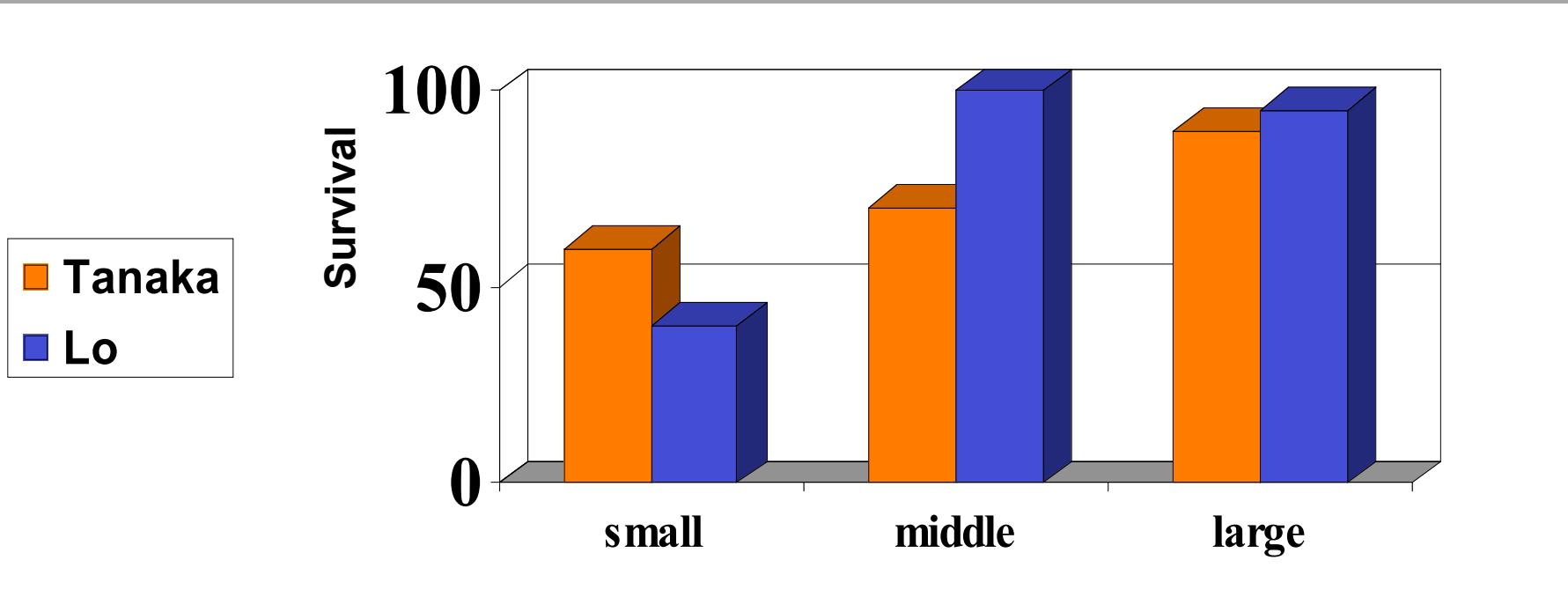
1963

**Réduction**

*Bismuth, Houssin. Surgery 1984.  
Soubrane, Houssin. J Am Coll Surg 1994.*

**Foie entier**  
*Starzl.*





**Graft to recipient weight ratio**  
**% of Standard liver mass**

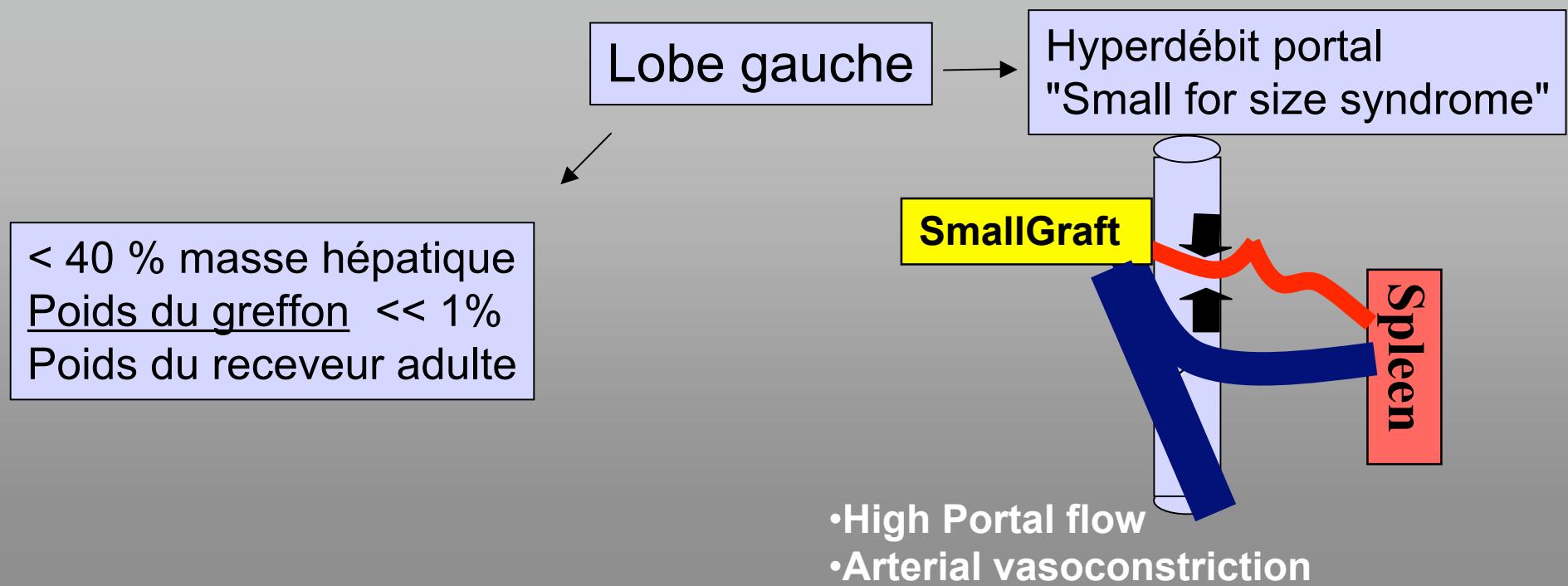
< 0.8%  
< 40%

0.8 - 1%  
40 - 50%

> 1%  
> 50%

# Compromis

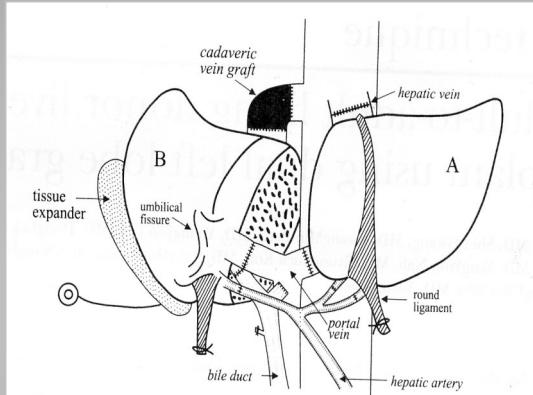
- Diminuer la mortalité en période d'attente et la sortie de liste
  - Recours au donneur vivant
  - Greffon "limite"
  - Bipartition
  - (Domino)
- Diminuer la morbidité et mortalité zéro chez le donneur vivant



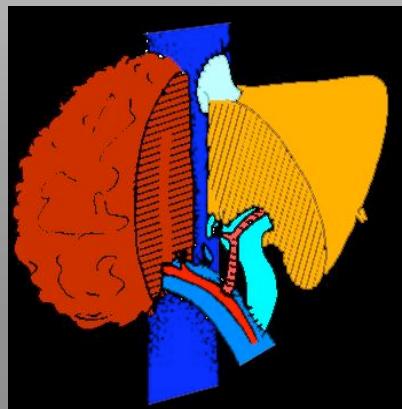
< 40 % masse hépatique  
Poids du greffon << 1%  
Poids du receveur adulte

Hyperdébit portal  
"Small for size syndrome"

Dual adult LDLT

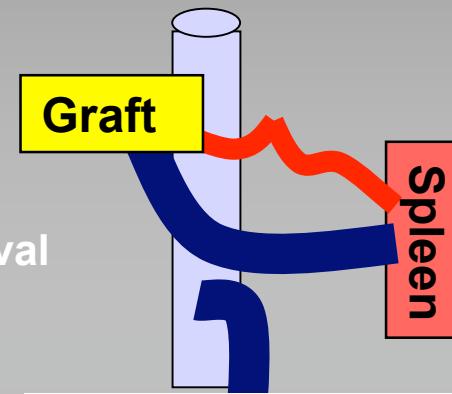


Foie natif "auxiliaire"



Dérivation portale

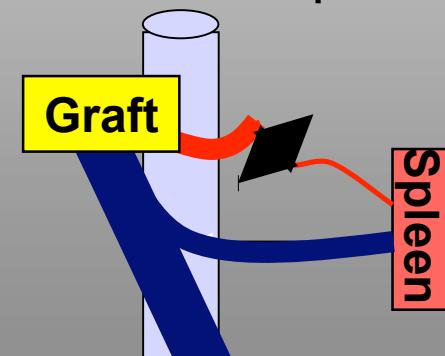
Partial porto-caval  
anastomosis



Boillot et al. Lancet  
2002

Ligature de l'artère splénique

Splenic artery  
Ligation



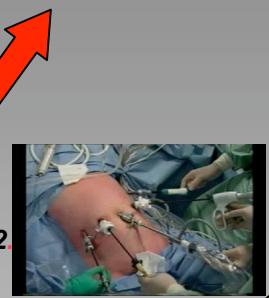
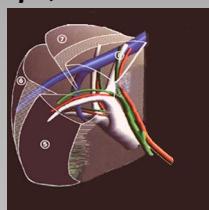
Troisi R et al. Ann Surg 2003

2006

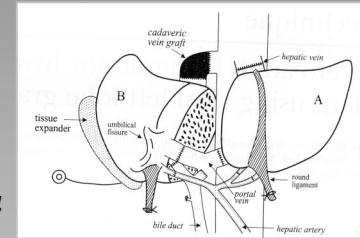
## TH auxiliaire- DV cœlio

2002  
2001

Prélèvement  
Lobe G cœlio  
*Cherqui, Soubrane. Lancet 2002*



Dual Adult LDLT  
*Lee. Transplant Proc 2001  
J Gastrointest surg 2004*

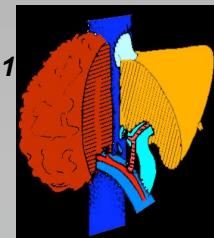


1997  
1995  
1994

Foie droit  
*Yamakoa. Transpl. 94.  
Boillo. Chirurgie 99*



Domino  
*Furtado A. Transp Proc 1*



1991

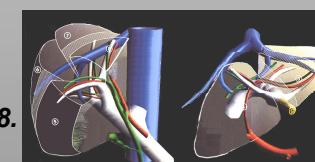
TH auxiliaire  
*Gubernatis. Worl J Surg 1991  
Boudjema, Lancet 1993.*



1989

Donneur vivant  
Lobe G-Foie G  
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Strong. New Eng J Med 1990.*

Bipartition  
*Pichlmayr, Ringe. Langenbecks Arch Chir 1988.  
Emond, Broelsch. Ann Surg 1990.  
Houssin, Couinaud. BJS 1991.*



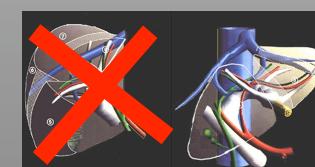
1988

Réduction  
*Bismuth, Houssin. Surgery 1984.  
Soubrane, Houssin. J Am Coll Surg 1994.  
Starzl.*



1984

1963



# Receveur

- Père de la donneuse
- 61 ans
- 185 cm, 70 Kgs
- Groupe B
- Antécédent :
  - carcinome épidermoïde ORL en 1999
- Cirrhose alcoolique

Child Pugh C 10 - C12 – MELD 19

- Hémorragies digestives, encéphalopathie
- Ascite réfractaire
- Syndrome hépato-rénal



**Branche porte gauche 11,5 mm**



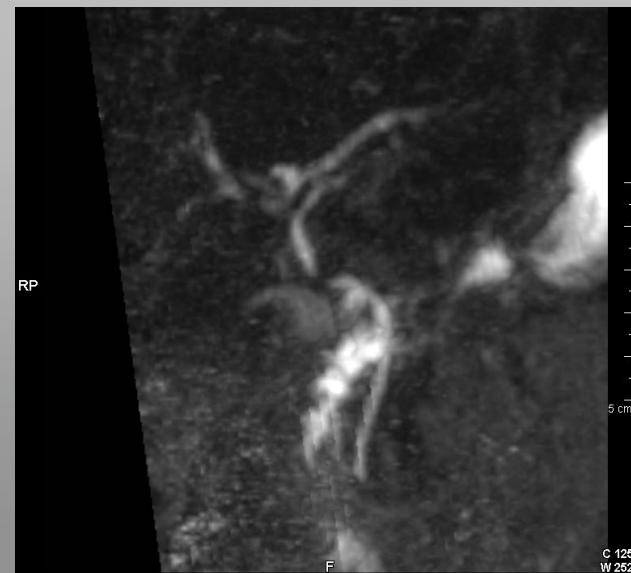
**Branche gauche de l'artère hépatique 2,2 mm**

# Donneuse

- Fille du receveur
- 32 ans
- 173 cm, 82 kgs
- Groupe B
- Comorbidité :
  - Surpoids; IMC 32 à 28 après perte de 14 kgs
  - Intoxication tabagique ancienne
- Atcds :
  - HTA gravidique
  - Èveinage G, 2 césariennes
  - Plastie abdominale
- Volumétrie préop LG : 305 cc



BP gauche 11,1 mm



Duplication biliaire gauche

# Prélèvement

- Laparoscopie
  - absence de stéatose confirmée par extemporané
  - Durée ischémie normothermique : 10 minutes
  - Durée d'intervention : 5H30
  - Pertes sanguines : 50 ml
  - Confirmation duplication biliaire
  - Poids lobe gauche: 311 gr
    - Rapport greffon/recepteur : 0,4 %
- Suites
  - Simples
  - Sortie à J 5



# Transplantation

- Lobectomie gauche
- Thrombectomie et reconstruction branche portale gauche
- Plastie d'agrandissement veine hépatique gauche native
- Implantation orthotopique avec 2 anastomoses bilio-biliaires

- Durée d'ischémie froide : 2H50
- Durée d'intervention : 10H30
- Pertes sanguines :
  - 4 culots globulaires
  - 8440 ml ceel saver retraité : 1300ml rendu

Vidéo TH auxiliaire Lobe Gauche  
6'45

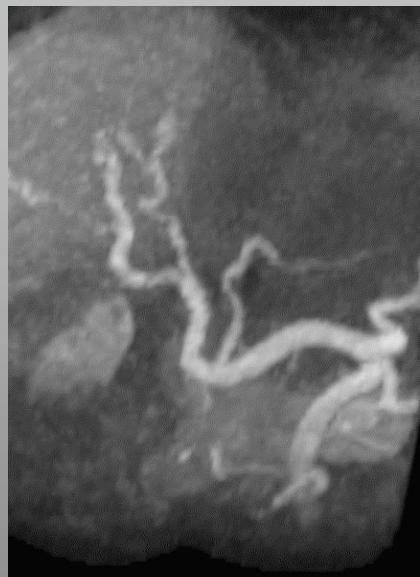
# Suites transplantation

- Reprise à J 7 chez receveur pour suspicion de "small for size" syndrome
  - Greffon beau et souple
  - Ligature artère splénique et biopsie hépatique
  - Pas de confirmation histo du SSS
  - Pertes sanguines : 4 culots globulaires
- Suites à distance : 21 jours de réanimation, 2 mois d'hospitalisation
  - Augmentation de volume du lobe gauche +++
  - TP 80 % et bili N à 1 mois
  - Pas de complication chirurgicale
  - Ascite +++ chyleuse, épanchements pleuraux
  - Syndrome hépatorénal
  - Suspicion de sténose portale (thrombose porte droite)

AngioTDM J 7



VP & VH gauches



Art. Hépatique gauche

Volumétries



Lobe gauche J 7 : 588 ml



Lobe gauche J 45: 1075 ml