

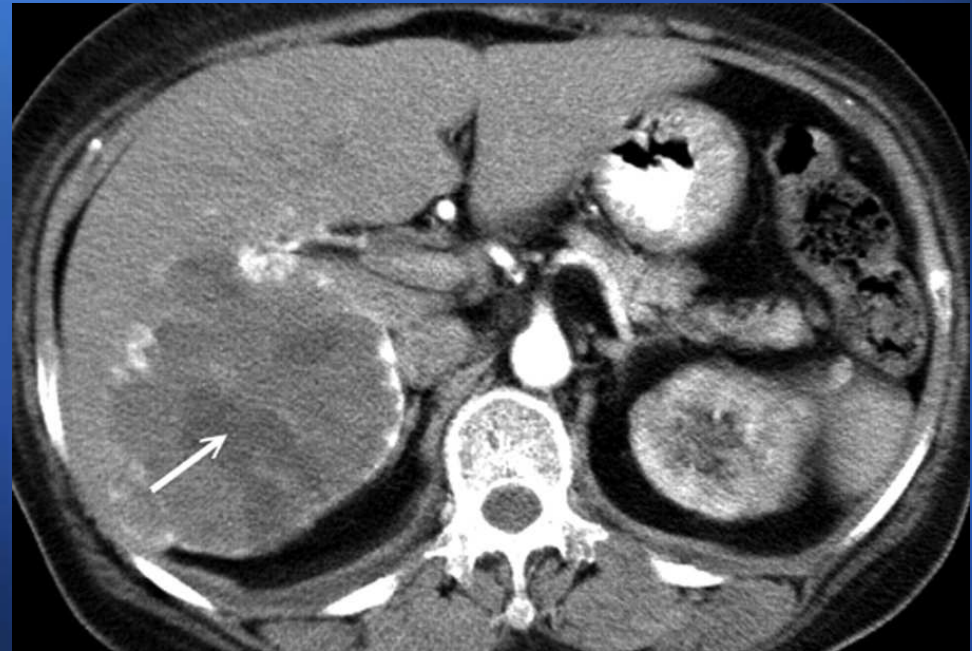
Hémangiomes hépatiques: quelle place pour la chirurgie?



Diane Cunin
Service de chirurgie hépatobiliaire et digestive Rennes
SCVO Rennes
Janvier 2010

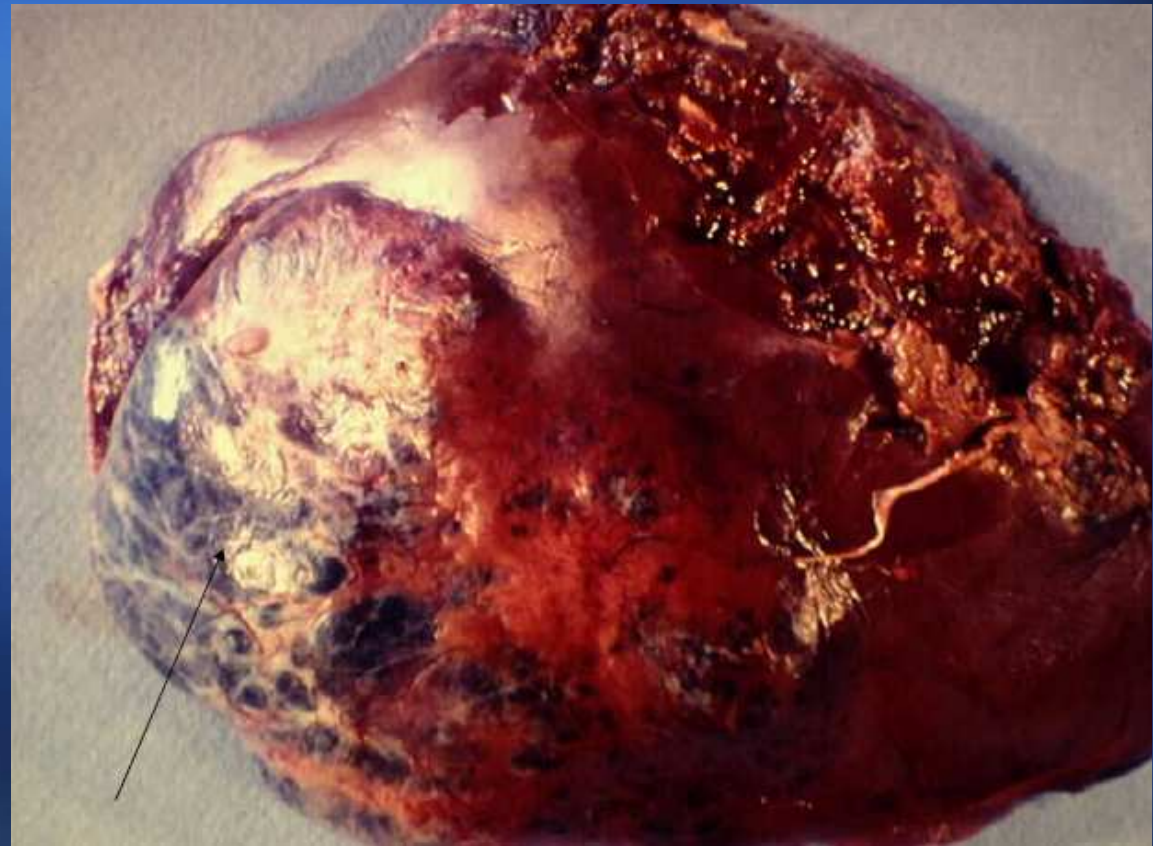
Ce que l'on sait

- + fréquente tumeur du foie après les métastases
- Homme entre 30 et 50 ans
- 2 à 5% des séries autopsiques
- 20%= géants= 4cm, jusqu'à 30cm



Ce que l'on sait

- Asymptomatique++
- Découverte fortuite
- Multiple dans 50% des cas
- Parfois associé à des syndromes: Rendu-Osler, Von-Hippel-Lindau
- Pas de risque de dégénérescence



Ce que l'on sait

- Éponge souple, cavitaire, clivable, sans capsule
- Masse de sinusoides dilatés, limités par un endothélium normal
- Interface fibreux



Comment l'affirmer?

	Singh, 2007	Yoon, 2003	Vishnevsky, 1991
Diagnostic échographie	57%	58%	69%
Diagnostique scanner	66%	73%	82%

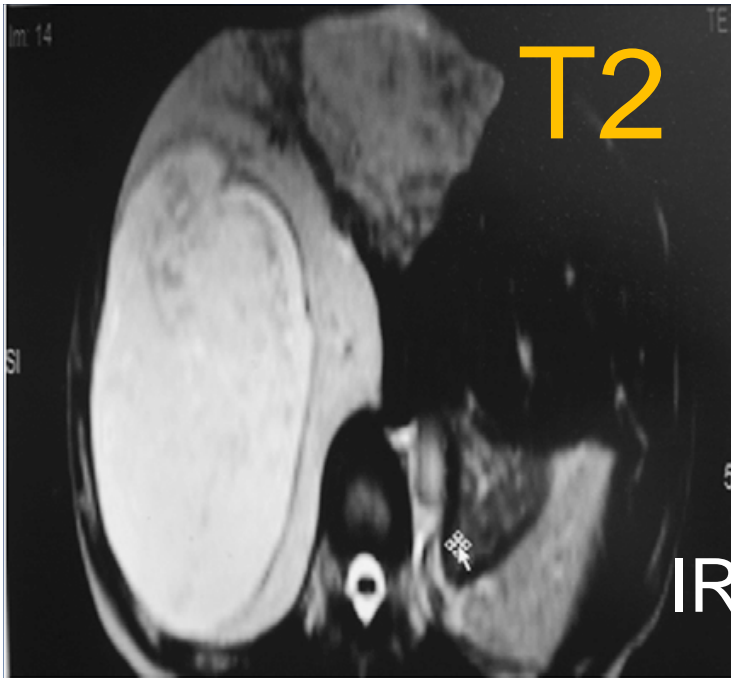
Rajneesh Kumar Singh and al. giant haemangioma of the liver: is enucleation Better than resection? *Ann R Coll Surg Engl* 2007

Yoon SS, Charny CK, Fong Y, Jarnagin WR, Schwartz LH, Blumgart LH *et al.* Diagnosis, management, and outcomes of 115 patients with hepatic hemangioma. *J Am Coll Surg* 2003; **197**: 392-402.

Vishnevsky VA, Mohan VS, Pomelov VS, Todua FI, Guseinov EK. Surgical treatment of giant cavernous hemangioma liver. *HPB Surg* 1991; **4**: 69-78.



Fig. 2 – Cas n° 2. Tomodensitométrie abdominale après injection. Hémangiome du foie droit.



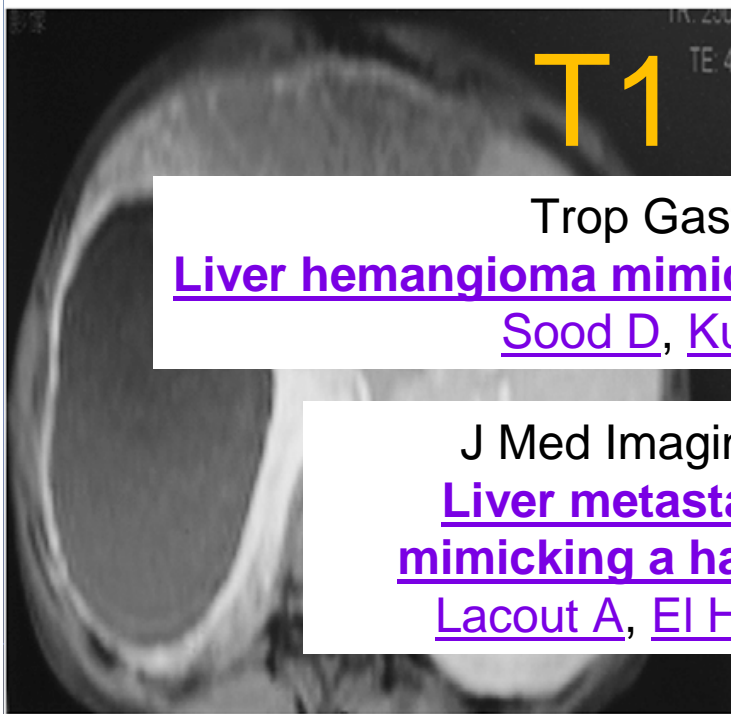
J Comput Assist Tomogr. 2008 ; 32(5): 750-756. doi:10.1097/RCT.0b013e31816a6823.

Receiver Operating Characteristic Analysis of Diffusion-Weighted Magnetic Resonance Imaging in Differentiating Hepatic Hemangioma From Other Hypervascular Liver Lesions

Josephina A. Vossen, MD*, Manon Buijs, MD*, Eleni Liapi, MD, John Eng, MD, David A. Bluemke, MD, PhD, and Ihab R. Kamel, MD, PhD

IRM+scanner=90 à 95% diagnostics

Ozden I, Emre A, Alper A, Tunaci M, Acarli K, Bilge O *et al.* Long-term results of surgery for liver hemangiomas. *Arch Surg* 2000; 135: 978-81.



Trop Gastroenterol. 2009 Jan-Mar;30(1):44-6.

Liver hemangioma mimicking cholangiocarcinoma--a diagnostic dilemma.

Sood D, Kumaran V, Buxi TB, Nundy S, Soin AS

J Med Imaging Radiat Oncol. 2008 Dec;52(6):580-2.

Liver metastasis of a mucinous colonic carcinoma mimicking a haemangioma in T2-weighted sequences.

Lacout A, El Hajjam M, Julie C, Lacombe P, Pelage JP

Ce que l'on admet

- « L'angiome dont le diagnostic est certain et non compliqué ne justifie aucune surveillance et aucun traitement »
- Recommandations SNFGE

Ce que l'on redoute



Prise en charge chirurgicale

Complications

- Douleurs abdominales chroniques sub-aigües ou aiguës
 - Symptomes d'origine biliaire
 - Le syndrome de Kasabach-Merrit
 - La rupture intrapéritonéale
 - volume ?
- Hémangiomes géants

Indication opératoire

	symptômes	Augmentation taille	Doute diagnostique	rupture
Yoon, 2003	60%	11%	29%	
Gedalby, 1999	68%		25%	7%
Singh , 2007	61,9%	14,3%	23,1%	

Yoon SS, Charny CK, Fong Y, Jarnagin WR, Schwartz LH, Blumgart LH *et al.*
Diagnosis, management, and outcomes of 115 patients with hepatic hemangioma. *J Am Coll Surg* 2003; **197**: 392-402.

Gedaly R, Pomposelli JJ, Pomfret EA, Lewis WD, Jenkins RL. Cavernous hemangioma of the liver: anatomic resection vs. enucleation. *Arch Surg* 1999; **134**: 407-11.

Rajneesh Kumar Singh and al.giant haemangioma of the liver: is enucleation Better than resection? *Ann R Coll Surg Engl* 2007

Douleurs abdominales

- Dyspepsie en rapport avec compression gastrique
- Douleur abdominale frustrée, aspécifique
- Pseudo-cholecystite

Bornman PC, Terblanche J, Blumgard RL, Harries Jones EP, Pickard H, Kalvaria I. Giant hepatic hemangiomas : diagnostic and therapeutic dilemmas. *Surgery* 1987;101:445-9.

- Hémorragie intra tumorale

Feldman PA. Atypical giant hepatic hemangiomas with intratumoral hemorrhage
Clin Gastroenterol. Hepatol. 2007

- Thrombose ou infarctus
- Abscès intra tumoral

Pinkernelle J. An unusual cause of epigastric pain: infected giant liver hemangioma
Acta Radiol. 2007

Difficulté: attribuer les symptômes à la tumeur

Compression biliaire

ABSTRACT

Giant hemangioma of the liver complicated with a biliary duct dilatation

Giant hepatic hemangiomas are rare entities. They can be symptomatic with pain and increased erythrocyte sedimentation rate. Cholestasis has already been reported. We describe a case of biliary dilatation secondary to a hemorrhagic giant hepatic hemangioma documented on CT and MRI.

Key words :

Liver, CT. Liver, MR studies. Liver, hemorrhage. Angioma, gastrointestinal tract. Bile ducts, obstruction.

J Radiol 1997

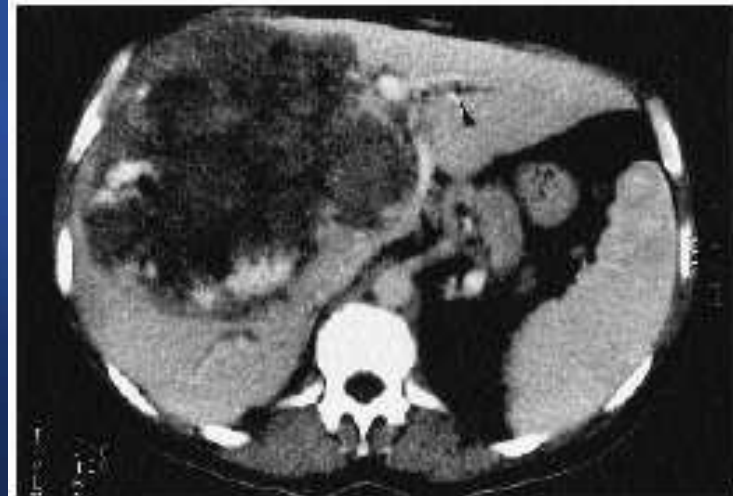
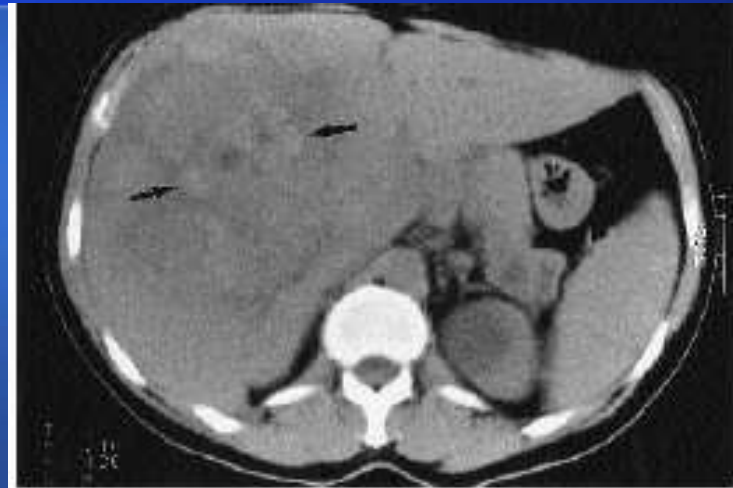


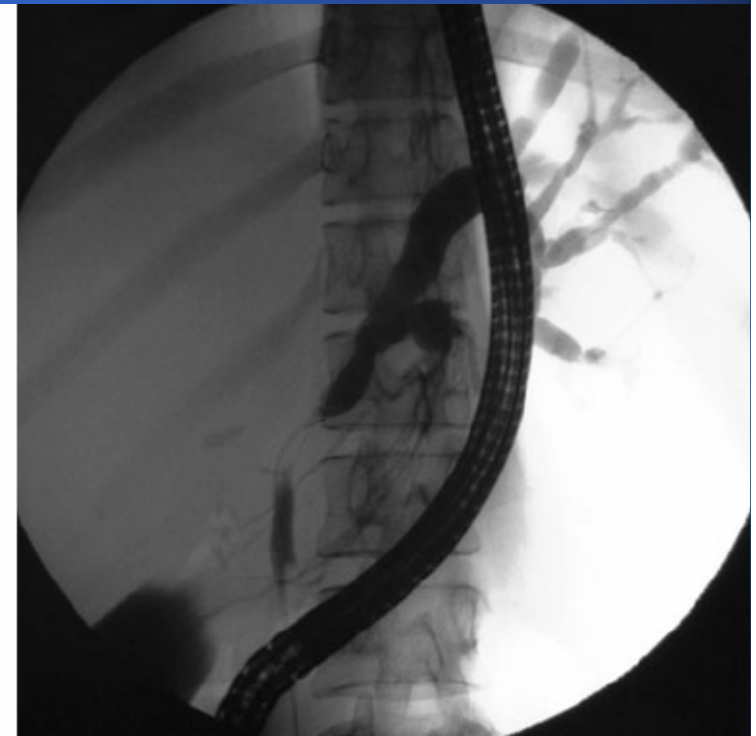
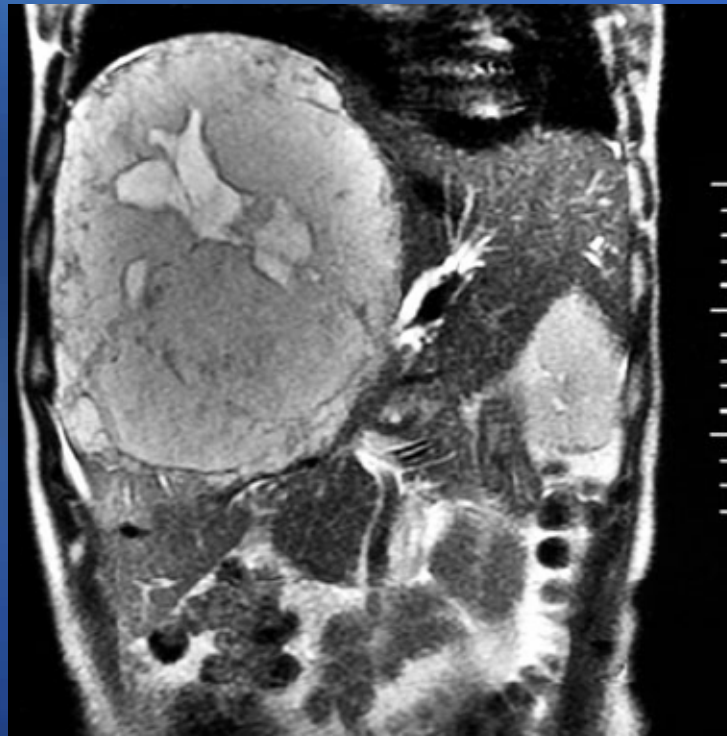
Fig. 1 : Examen tomodensitométrique sans (a) et avec (b) injection de produit de contraste.

a : avant injection, la tumeur a une densité hétérogène, en majorité hypodense et contenant des zones centrales spontanément hyperdenses (flèches).
b : la prise de contraste en moites intenses périphérique est caractéristique d'hémangiome. Il existe une dilatation des voies biliaires intrahépatiques gauches (tête de flèche).

Compression biliaire

EDUCATION AND IMAGING

Hepatobiliary and pancreatic: Large cavernous hemangioma with obstructive jaundice



- Hémobilie 1 cas

Rupture intra péritonéale



Hemoperitoneum from a Spontaneous Rupture of a Giant Hemangioma of the Liver: Report of a Case

NICOLA CORIGLIANO, PAOLO MERCANTINI, PIETRO MARIA AMODIO, GENOVEFFA BALDUCCI, SALVATORE CATERINO, GIOVANNI RAMACCIATO, and VINCENZO ZIPARO

Table 1. Twenty-seven cases of a spontaneous rupture of a hepatic giant hemangioma in adults reviewed from a PubMed Medline search

No.	First author ^{Ref.}	Year	Age (years)	Sex	Tumor size	Tumor location	Management	Outcome
1	Van Haefen ²⁴	1898	70	F	n.r.	R	^a	Died
2	Turner ²⁵	1922	n.r.	M	n.r.	n.r.	Resection	Died
3	Karp ²⁶	1931	39	F	n.r.	L	Tamponade	Died
4	Tinker ²⁷	1935	65	F	n.r.	L	Resection	Alive
5	Marckstadt ²⁸	1938	27	F	Orange-size	L	Tamponade	Died
6	Dahle ²⁹	1939	44	F	Orange-size	R	Tamponade	Alive
7	Caldwell ³⁰	1950	61	M	n.r.	L	Suture	Alive
8	Oribe ³¹	1951	47	M	Egg-size	R	Tamponade	Died
9	Kruppa ³²	1951	15	F	14 cm	R	Suture	Alive
10	Swell ³³	1961	21	F	10 cm	R	Suture	Died
11	Dessoff ³⁴	1967	53	M	Whole of right lobe	R	^a	Died
12	Adam ⁵	1970	46	F	25 cm	R	Resection	Died
13	Arnesjo ¹⁴	1975	55	F	10 cm	R	Resection	Died
14	Ong ¹⁵	1975	43	F	Whole of right lobe + IV segment	R-L	Resection	Alive
15	Nyman ³⁵	1978	37	M	n.r.	L	Suture	Alive
16	Coca ²⁰	1979	n.r.	n.r.	n.r.	L	Resection	Alive
17	Shiebold ³⁶	1980	43	F	20 cm	R	Suture	Died
18	Starzl ³⁷	1980	61	F	15 cm	R	Resection	Alive
19	Dib ¹⁷	1984	44	F	3 cm	n.r.	^a	Died
20	Nanbu ³⁸	1986	46	M	4 cm	R	^a	Died
21	Yamamoto ¹¹	1991	71	M	6 cm	L	TAE + Resection	Alive
22	Mazziotti ¹⁶	1995	73	M	Giant	R	TAE + Resection	Alive
23	Soyer ¹⁸	1995	36	F	n.r.	R	TAE + Resection	Alive
24	Moreno ⁴	1996	68	F	15 cm	L	Resection	Alive
25	Scribano ¹²	1996	44	F	Giant	L	n.r.	n.r.
26	Cappellani ⁸	2000	43	M	22 cm	R	Resection	Alive
27	Corigliano	2002	53	F	11 cm	L	TAE + Resection	Alive

n.r., not reported; L, left hepatic lobe; R, right hepatic lobe; TAE, transcatheter arterial embolization

^aDied of hemorrhagic shock without any surgery

Be Treated by Surgery or by

*J. C. Pector** , G. Liberale***

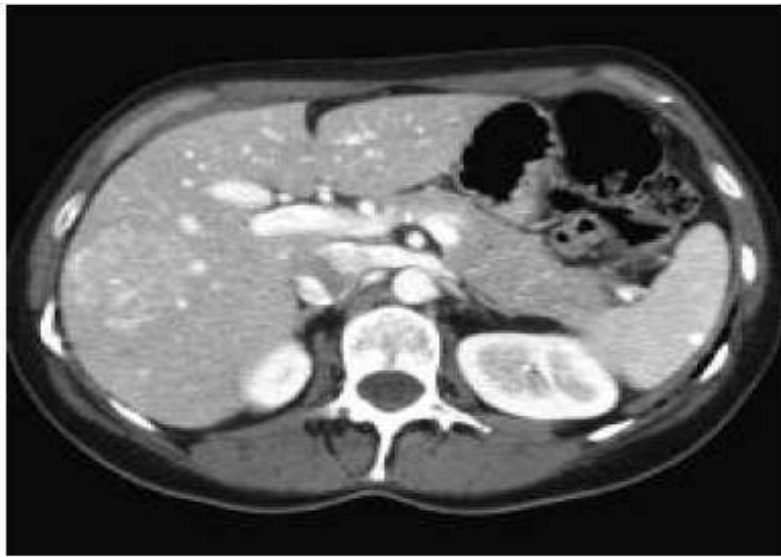


Fig. 1a

Computed tomography (CT) performed before admission showing a liver haemangioma located at the junction of segment VII and VIII.



Fig. 1b

Abdominal CT performed at admission showing ruptured liver haemangioma in the entire right hepatic lobe (segments IV to VIII) with moderate haemoperitoneum.



Fig. 1c

Abdominal CT performed at 6 months follow-up after conservative treatment showing haemangioma regression.

Chirurgie préventive



Rupture intra péritonéale

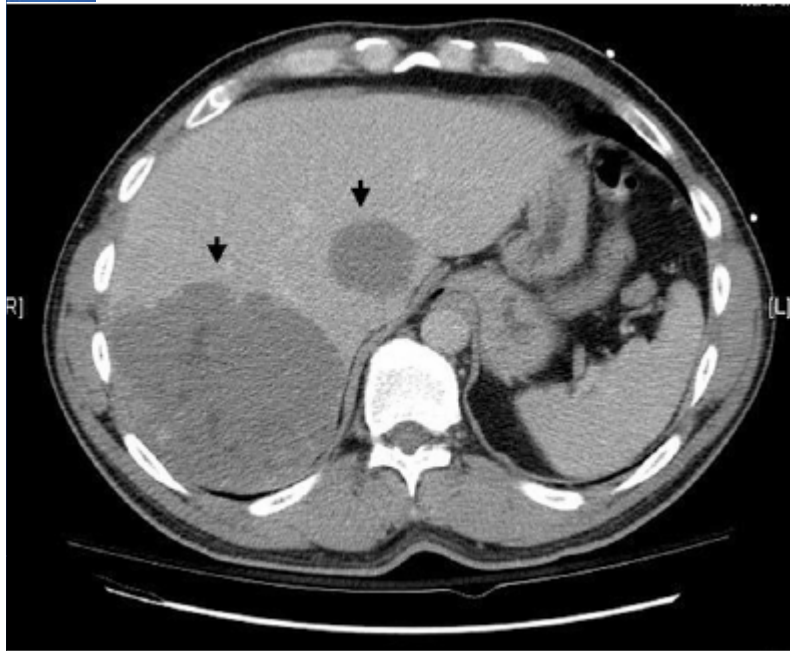
- Chirurgie préventive : pas d'argument

CASE REPORT

Hepatic Hemangiomas and Parachuting

TIMOTHY P. PLACKETT AND KEVIN M. LIN-HURTUBISE

Aviation, Space, and Environmental Medicine x Vol. 79, No. 10 x October
2008



Surveillance des hémangiomes géants?

pour

Egea AM, Rodriquez MDP, Cantero MV, Atenza JA. Indications for surgery in the treatment of hepatic hemangioma. Hepatogastroenterology 1996; 32:422-6.

Lise M, Feltrin G, Pian PPD, Miotto S, Pilati PL, et al. Giant cavernous hemangiomas: diagnosis and surgical strategies. World J Surg 1992; 16:516-20.

contre

ORIGINAL
ARTICLE
Is regular follow-up scan for giant liver haemangioma necessary?
Wilson WC Ng 吳咏志
YC Cheung 張宇新

42 cas 11% >20% d'augmentation de taille
4 cas > 40% d'augmentation de taille

7,8mm par an



Pas de surveillance

Syndrome de Kasabach-Merritt

- Associé aux tumeurs vasculaires
- 10% mortalité
- Thrombopénie majeure
- Coagulopathie de consommation

fibrinogène << et TP <<
d-dimères >>

- Ttt médical possible:

Corticothérapie
Interféron, vincristine
aspégic+plavix

Pas de transfusion de
plaquettes++

Syndrome de Kasabach-Merritt



4-week history of a right gluteal hematoma after a mild trauma associated with asthenia and unspecific upper abdominal symptoms

The hematogram revealed anemia (hematocrit value, 19%; hemoglobin level, 9.9 g/dL) and thrombocytopenia (platelet count, 77103/ μ L). fibrinogen, 400mg/dL (11.8 μ mol/L)

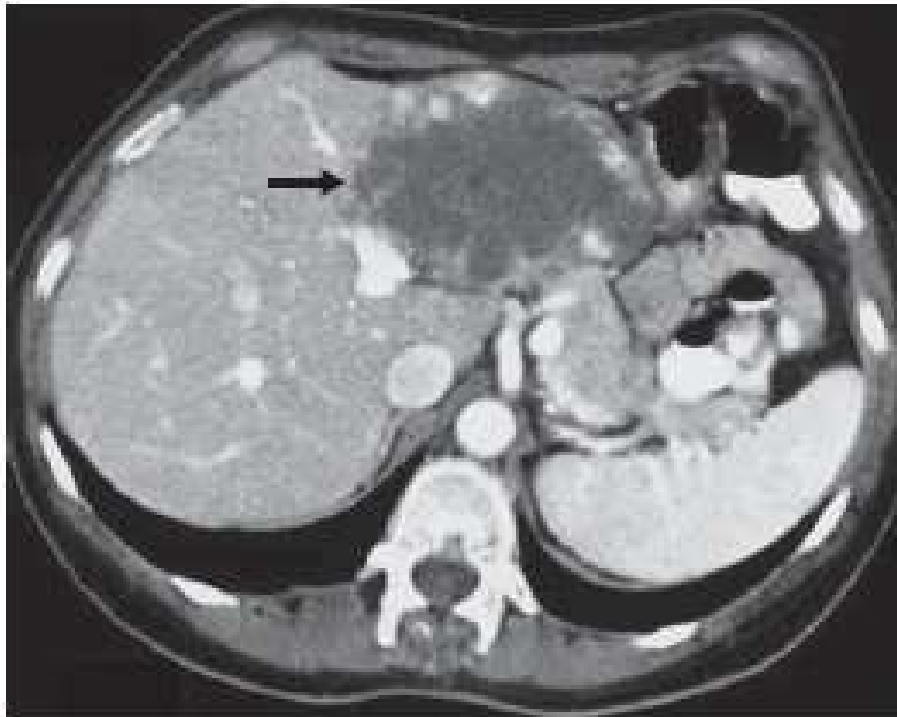


Figure 1. Contrast-enhanced computed tomogram showing a giant heterogeneous mass (arrow) occupying the left segments of the liver.

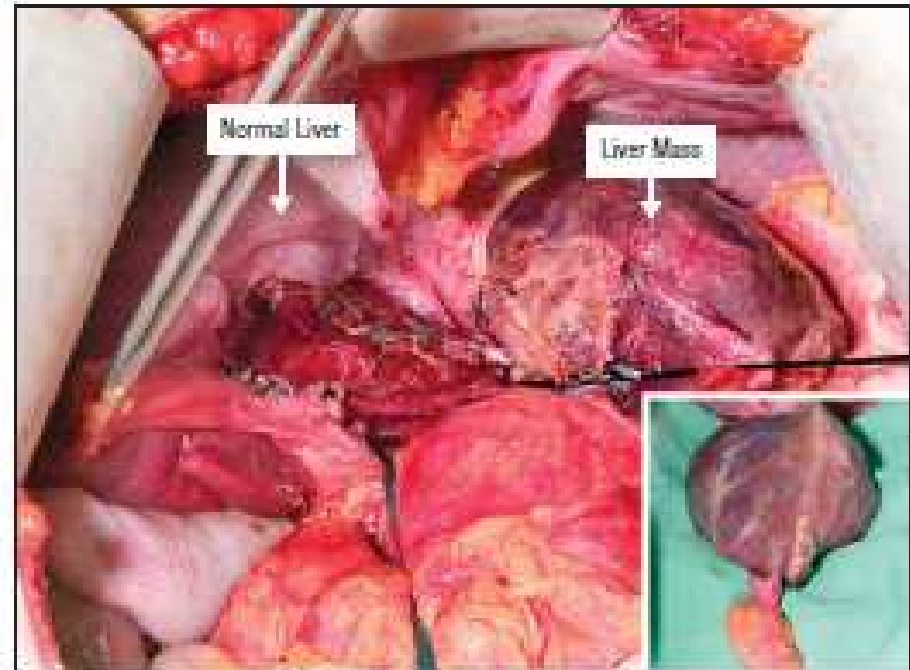


Figure 2. Intraoperative picture showing an enucleated liver lesion from the surrounding normal hepatic parenchyma. Vessels at the transection plane were controlled with silk ligatures and titanium clips. The inset image

Hémangiomes pédiculés

CAS
CLINIQUE

Hémangiome géant du foie révélé par un syndrome inflammatoire

Eric POUPARDIN (1), Jean-Marc RÉGIMBEAU (1), Reza KIANMANESH (1), Magali COLOMBAT (2),
Alain SAUVANET (1), Jacques BELGHITI (1)

Gastroenterol Clin Biol 2002;26:93-95

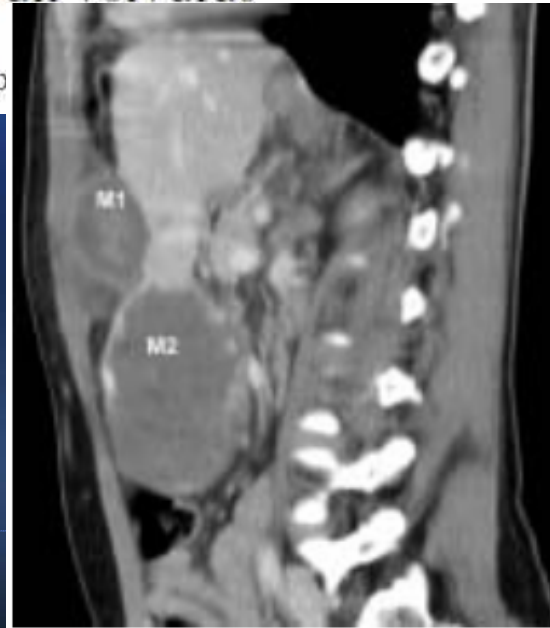
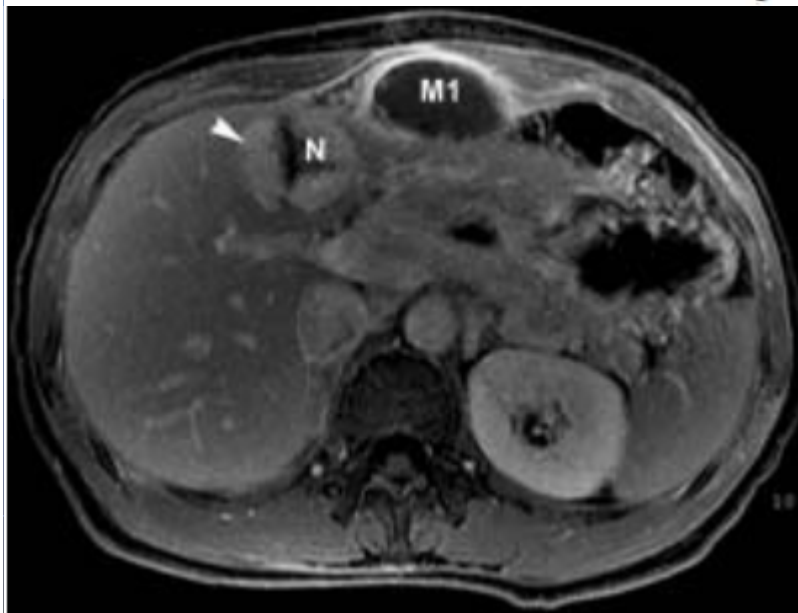
J Radiol 2007;88:891-4

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lettre

digestif

Multiples hémangiomes hépatiques pédiculés
révélés par un volvulus



1)

Prise en charge chirurgicale



The Royal College of Surgeons of England

GASTROINTESTINAL

Ann R Coll Surg Engl 2007; **89**: 490–493
doi 10.1308/003588407X202038

Giant haemangioma of the liver: is enucleation better than resection?

RAJNEESH KUMAR SINGH, SORABH KAPOOR, PEUSH SAHNI, TUSHAR K CHATTOPADHYAY

Table 1 Surgical procedures and results

Parameter	Enucleation (<i>n</i> = 9)	Liver resection (<i>n</i> = 12)	<i>P</i> -value
Size of haemangioma, mean (range) cm	8.9 (5–15)	10 (4–25)	0.858
Blood loss, mean (range) ml	400 (200–600)	1329.1 (300–5000)	0.004
Operative time, mean (range) min	170 (120–240)	230 (90–360)	0.035
Major morbidity (%)	Nil	41.6	0.045
Hospital stay, mean (range) days	5.6 (4–8)	9.9 (4–20)	0.005

Giant Cavernous Liver Hemangiomas

Effect of Operative Approach on Outcome

Susan M. Lerner, MD; Jonathan R. Hiatt, MD; Johanna Salamandra, RN, BSN; Pauline W. Chen, MD; Douglas G. Farmer, MD; Rafik M. Ghobrial, MD, PhD; Ronald W. Busuttil, MD, PhD

Table 2. Operative Variables and Outcome

	Operative Groups		P Value
	Enucleation (n = 27)	Lobectomy (n = 25)	
Cholecystectomy, No. (%)	11 (41)	13 (52)	.58
Inflow occlusion			
No. (%) of patients	21 (78)	4 (16)	<.001
Duration, mean ± SD, min	23 ± 12	15 ± 9	.18
Operative time, mean ± SD, min	174 ± 72	198 ± 65	.22
Transfusion			
No. (%) of patients	4 (15)	7 (28)	.32
Mean No. of units	3.3	4.4	.22
Complications, No. (%)	3 (11)	11 (44)	.01
Hospitalization, mean ± SD, d	6.9 ± 2.2	8.7 ± 4.1	.06

Enucleation of liver hemangiomas: is there a difference in surgical outcomes for centrally or peripherally located lesions?

Fu Xiao-Hui, M.D.^a, Lai Eric Chun Hung, M.B.Ch.B., M.R.C.S.Ed., F.R.A.C.S.^b,

Am J Surg 2009

Table 3 Intraoperative and postsurgical outcomes

Outcomes	Peripherally located hemangiomas (n = 96)	Centrally located hemangiomas (n = 76)	P
Surgical time (mean ± SD) (min)	89.0 ± 26.2	124.5 ± 33.8	<.001
Vascular inflow occlusion time (mean ± SD) (min)	32.6 ± 17.6	45.3 ± 25.2	<.001
Median (range) intraoperative blood loss (mL)	500 (50–5800)	800 (100–8500)	.004
Median (range) blood transfusion (U)	0 (0–26)	2 (0–38)	.001
No. of patients needing blood transfusion	42	51	.002
Total (mean ± SD) hospital stay (d)	18.95 ± 4.50	21.24 ± 6.91	.024
Postsurgical hospital stay (mean ± SD) (d)	9.11 ± 1.03	10.29 ± 2.75	<.001
No. of major complications			.848
Postsurgical hemorrhage	0	0	
Bile leak	1	1	
Intra-abdominal collection	0	0	
Pleural effusion	2	1	
Hospital mortality	0	0	—



Right trisegmentectomy with thoracoabdominal approach after transarterial embolization for giant hepatic hemangioma

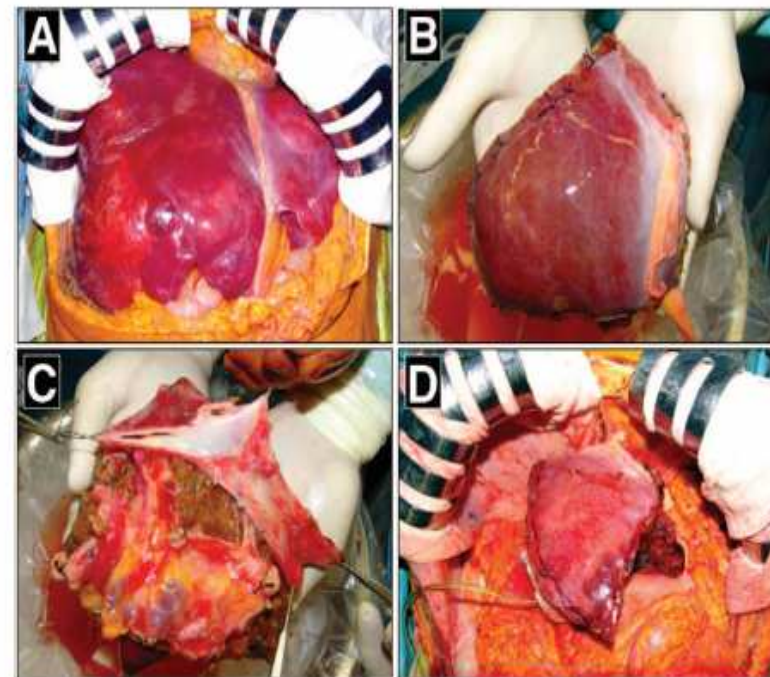
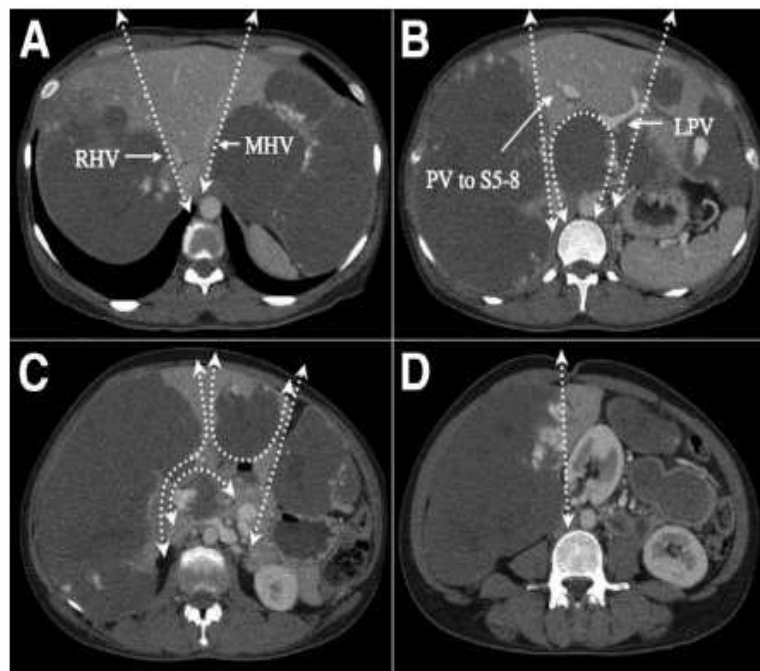
Hyung-Il Seo, Hong Jae Jo, Mun Sup Sim, Suk Kim

Vassiou K, Rountas H, Liakou P, Arvanitis D, Fezoulidis I, Tepetes K. Embolization of a giant hepatic hemangioma prior to urgent liver resection. Case report and review of the literature. *Cardiovasc Intervent Radiol* 2007; 30: 800-802.

Extracorporeal Hepatic Resection for Unresectable Giant Hepatic Hemangiomas

Toru Ikegami, Yuji Soejima, Akinobu Taketomi, Hiroto Kayashima, Kensaku Sanefuji, Tomoharu Yoshizumi, Noboru Harada, Yo-Ichi Yamashita, and Yoshihiko Maehara

Department of Surgery and Science, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan



Liver Transpl 2008

Conclusions

- Les hémangiomes ne s'opèrent pas et ne se surveillent pas.
- Pas de chirurgie préventive au nom de complications tout à fait exceptionnelles.
- Les hémangiomes compliqués peuvent éventuellement être reséqués encore faut-il
avoir la certitude d'une relation entre angiome et complication:
L'énucléation est mieux que la résection
La bénignité de l'affection exige l'expertise de la prise en charge
- Les hémangiomes géants compliqués non énucléables , non résécables sont des indications de greffe

Case report

Incidental reduction in the size of liver hemangioma following use of VEGF inhibitor bevacizumab[☆]

Dipti Mahajan¹, Charles Miller², Kenzo Hirose², Arthur McCullough³, Lisa Yerian^{1,*}