LVIII CONGRESSO BRASILEIRO DE CARDIOLOGIA

SBC/DCM

Departamento de Cardiologia Mulher

INSUFICIÊNCIA CARDÍACA NA GESTAÇÃO

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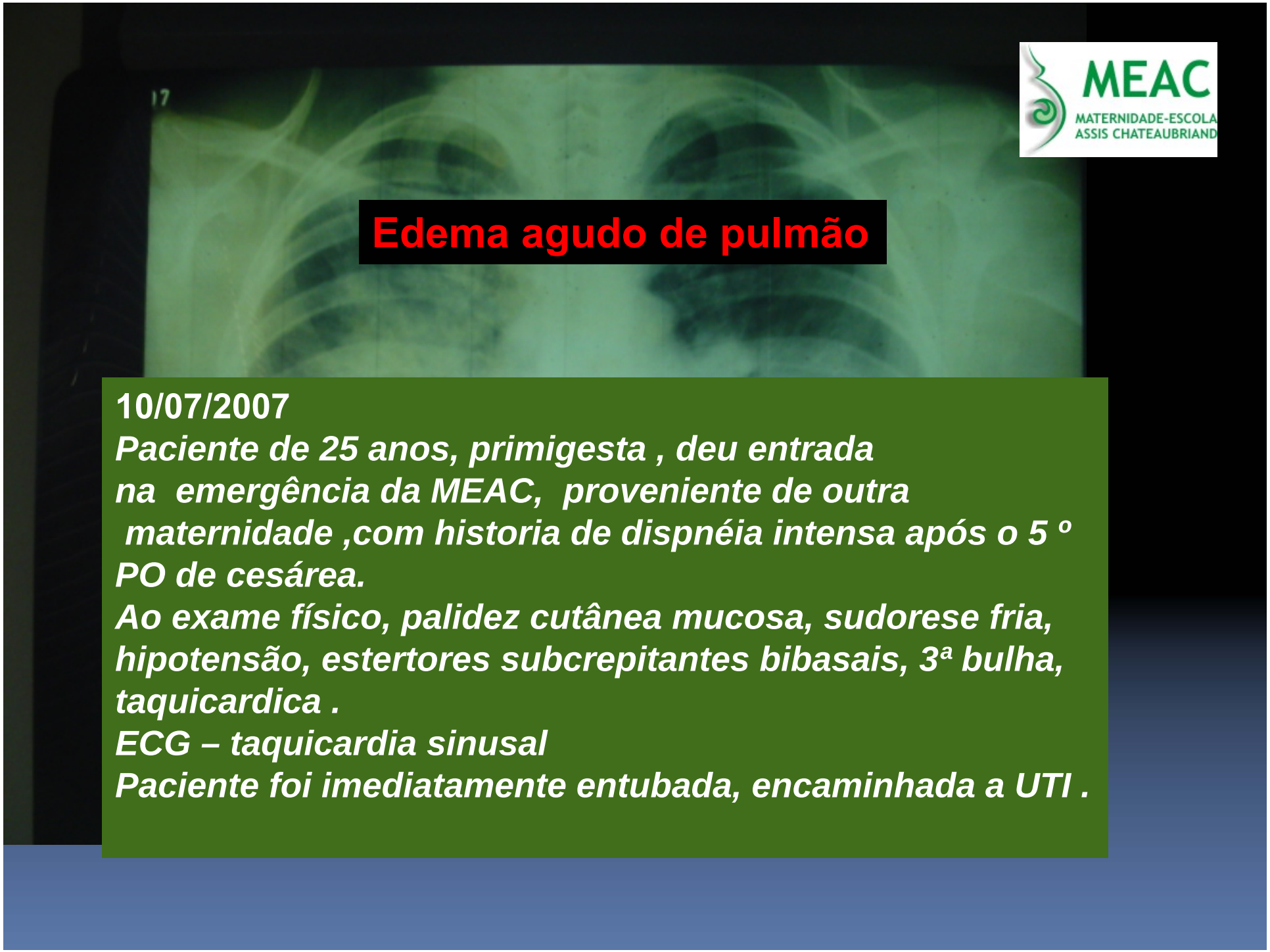
MEAC
MATERNIDADE-ESCOLA ASSIS CHATEAUBRIAND



MEAC
MATERNIDADE-ESCOLA
ASSIS CHATEAUBRIAND

Edema agudo de pulmão

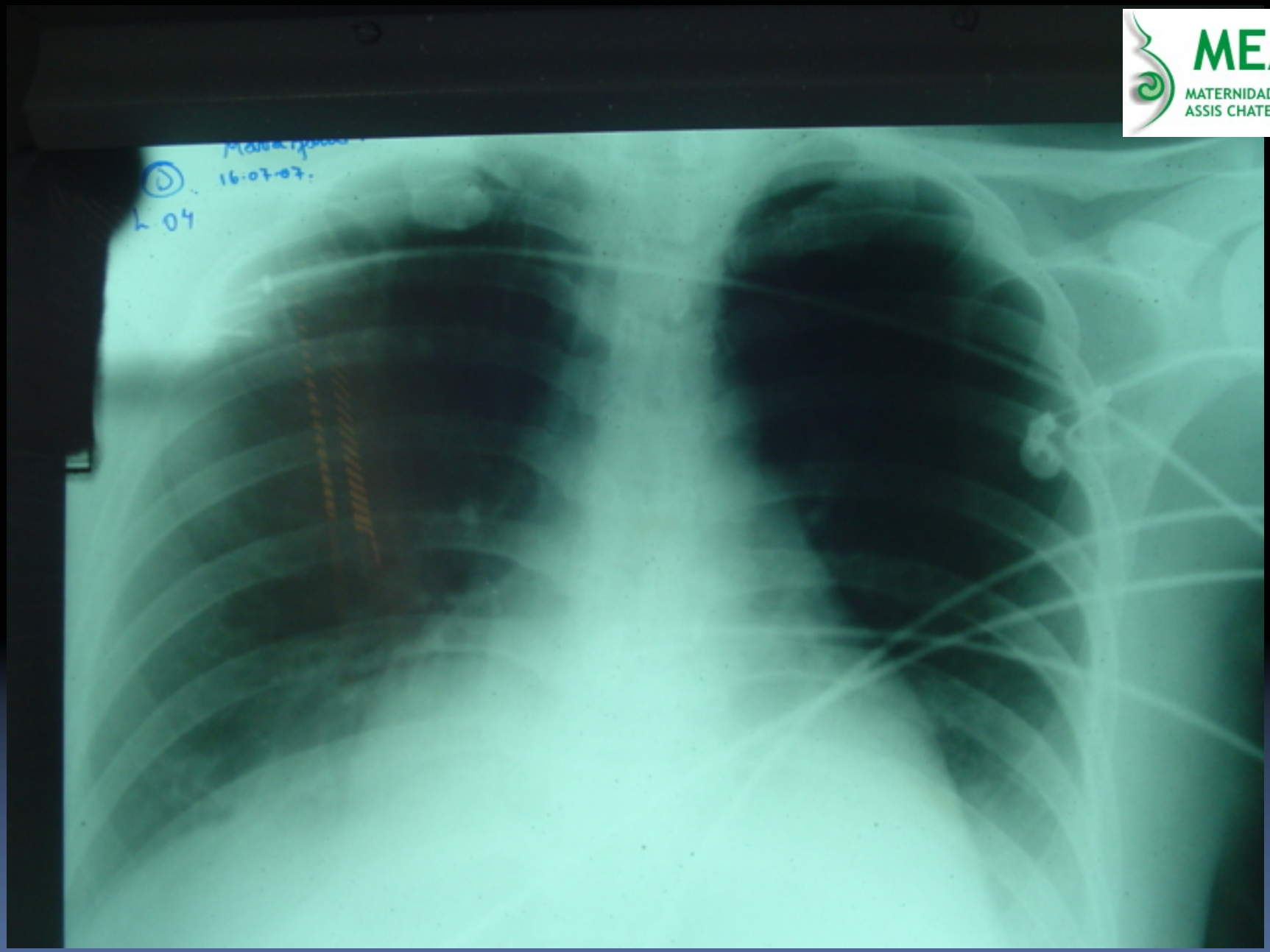
10/07/2007

Paciente de 25 anos, primigesta , deu entrada na emergência da MEAC, proveniente de outra maternidade ,com historia de dispnéia intensa após o 5 º PO de cesárea.

Ao exame físico, palidez cutânea mucosa, sudorese fria, hipotensão, estertores subcrepitantes bibasais, 3ª bulha, taquicardica .

ECG – taquicardia sinusal

Paciente foi imediatamente entubada, encaminhada a UTI .



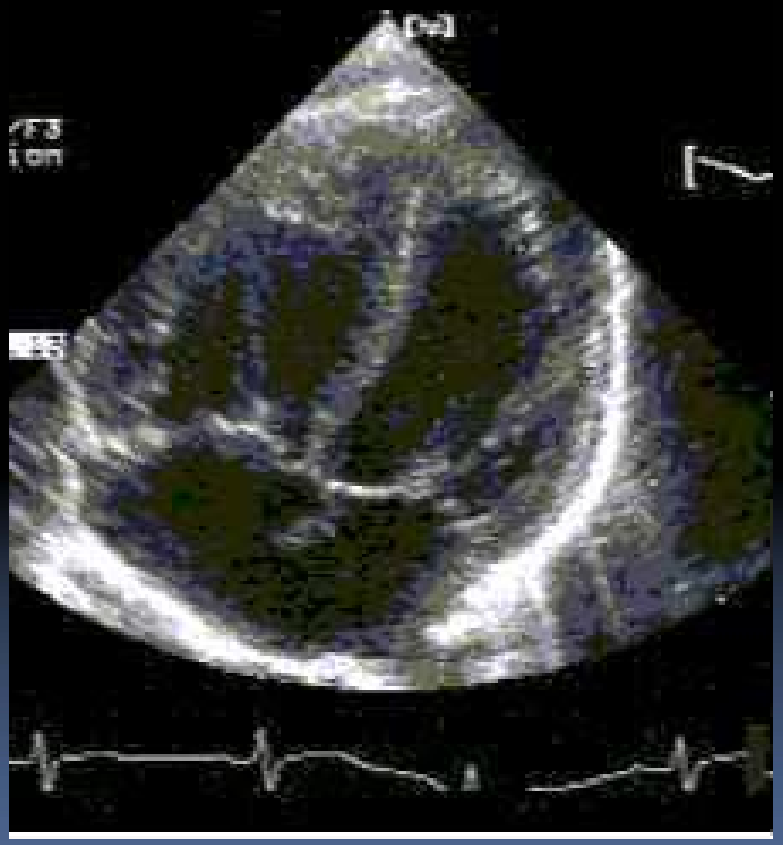
MEAC
MATERNIDADE-ESCOLA
ASSIS CHATEAUBRIAND

ecodopllercardiograma

MEAC
MATERNIDADE-ESCOLA
ASSIS CHATEAUBRIAND

Laudo

1. Hipocinesia difusa
2. Disfunção sistólica importante
3. Disfunçâo diastólica grau I
4. FE 40%



Systemic Inflammatory Response Syndrome, Organ Failure, and Outcome in Critically Ill Obstetric Patients Treated in an ICU*

Table 2—*Reasons for ICU Admission of 74 Critically Ill Obstetric Patients*

Reason	No. (%)
Respiratory insufficiency	
Pulmonary edema	18 (24)
Pneumonia	10 (14)
Status asthmaticus	2 (3)
Pulmonary embolism	1 (1)
Upper airway obstruction	1 (1)
Pleural effusion	1 (1)
Sickle chest syndrome	1 (1)
Hemodynamic instability	
Postpartum hemorrhage	7 (9)
Sepsis	8 (11)
Hypertension	4 (5)
Cardiogenic	4 (5)
Anaphylactic	1 (1)
Supraventricular tachycardia	1 (1)

Bekele et al. Chest 2001;120:1271-1277

EDEMA PULMONAR DURANTE A GESTAÇÃO

CLINICAL INVESTIGATIONS

Circ J 2002; **66:** 623–626

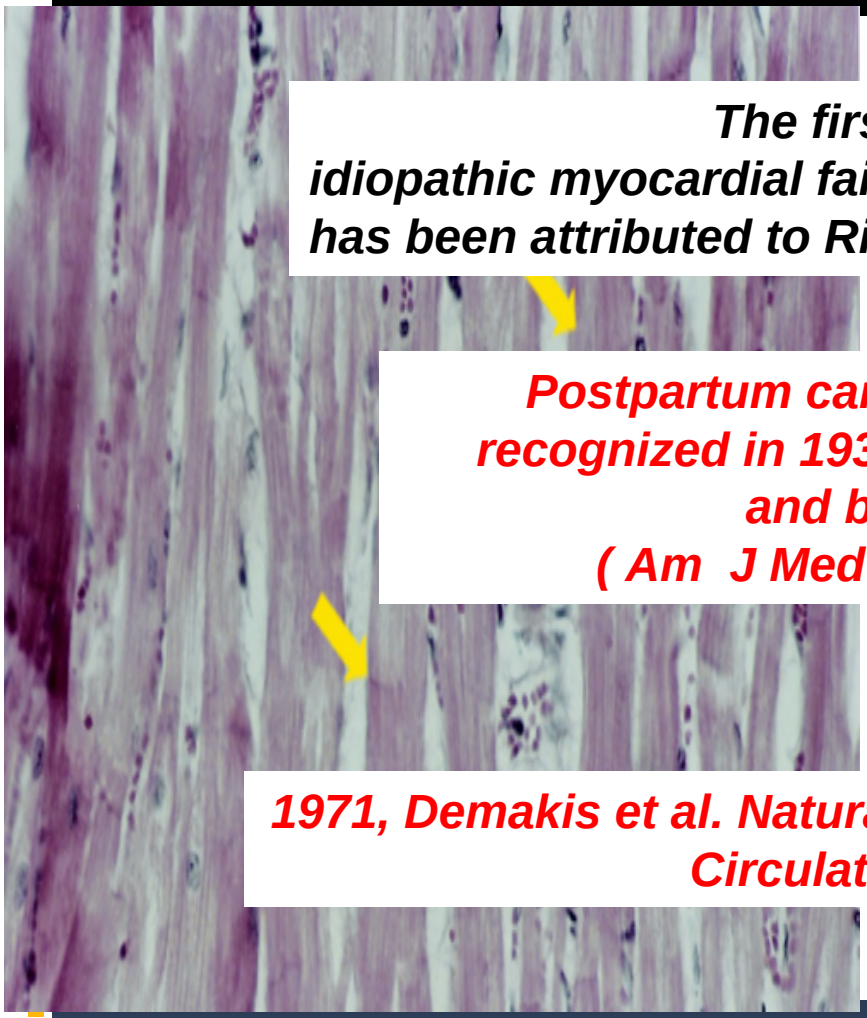
Pulmonary Edema During Pregnancy

—— Unilateral Presentation Is Not Rare ——

Hyun-Suk Choi et al.Circulation 2002;66:623-626

Case no.	Age (years)	Primary cause of pulmonary edema	Echo (EDD/EF/FS)	Onset
1	31	P-CMP	36 / 16 / 8	8 days PP
2	27	P-CMP	33 / 29 / 16	1 day PP
3	28	P-CMP	35 / 35 / 19	1 day PP
4	32	P-CMP	35 / 39 / 22	3 days PP
5	25	P-CMP	34 / 41 / 23	7 days PP
6	29	P-CMP	28 / 42 / 24	1 day PP
7	35	HHD	34 / 28 / 15	2 days PP
8	30	RVD (moderate MSR)	33 / 37 / 21	AP, 37 weeks
9	38	RVD (severe MR)	32 / 52 / 31	4 days PP
10	33	RVD (severe MS)	31 / 61 / 38	AP, 32 weeks
11	34	DHF	31 / 62 / 38	1 day PP
12	29	DHF	30 / 65 / 41	AP, 28 weeks
13	31	NC (volume overload)	32 / 64 / 40	AP, 33 weeks
14	31	NC	34 / 47 / 27	1 day PP
15	33	NC	33 / 64 / 40	AP, 26 weeks
16	27	NC	32 / 47 / 27	1 day PP
17	29	NC	29 / 53 / 31	AP, 26 weeks
18	31	NC	31 / 60 / 37	5 days PP

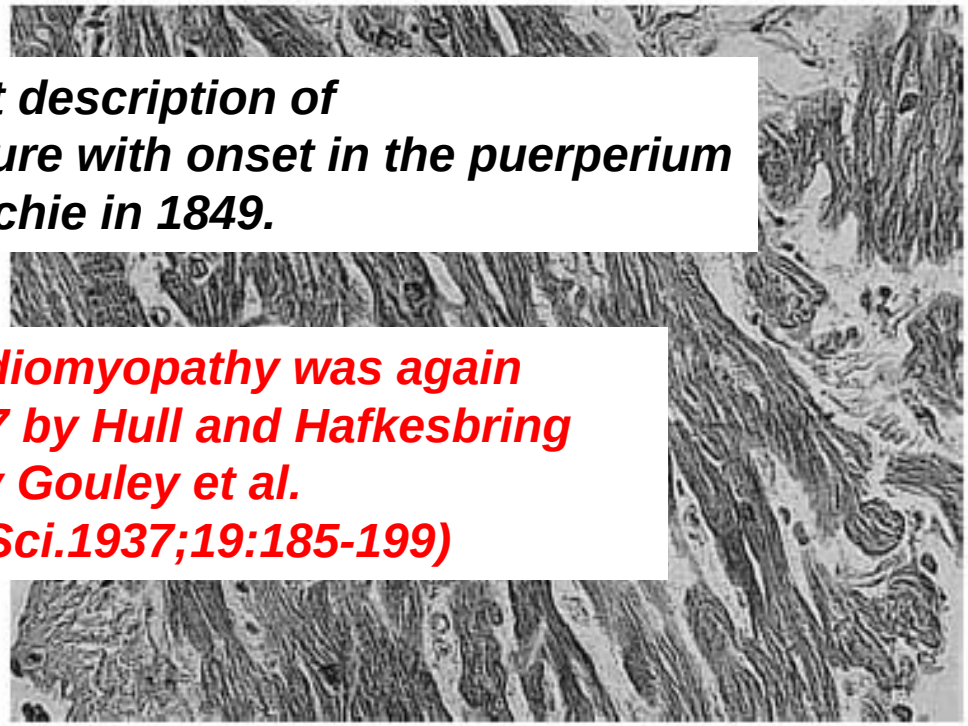
Hyun-Suk Choi et al.Circulation 2002;66:623-626



The first description of idiopathic myocardial failure with onset in the puerperium has been attributed to Ritchie in 1849.

Postpartum cardiomyopathy was again recognized in 1937 by Hull and Hafkesbring and by Gouley et al. (Am J Med Sci.1937;19:185-199)

1971, Demakis et al. Natural course of peripartum cardiomyopathy. Circulation 1971; 44;1053-1061



u-
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interstitial fibrosis. No obvious infiltration of inflammatory cells can be seen (Hematoxyline–eosin; ×100).

National Heart, Lung, and Blood Institute and Office of Rare Disease (National Institutes of Health)
JAMA 2000;283:1181188

EDEMA PULMONAR DURANTE A GESTAÇÃO

É uma complicação
Clínica rara em gestantes
???

Pregnancy-Related Mortality Due to Cardiomyopathy: United States, 1991–1997

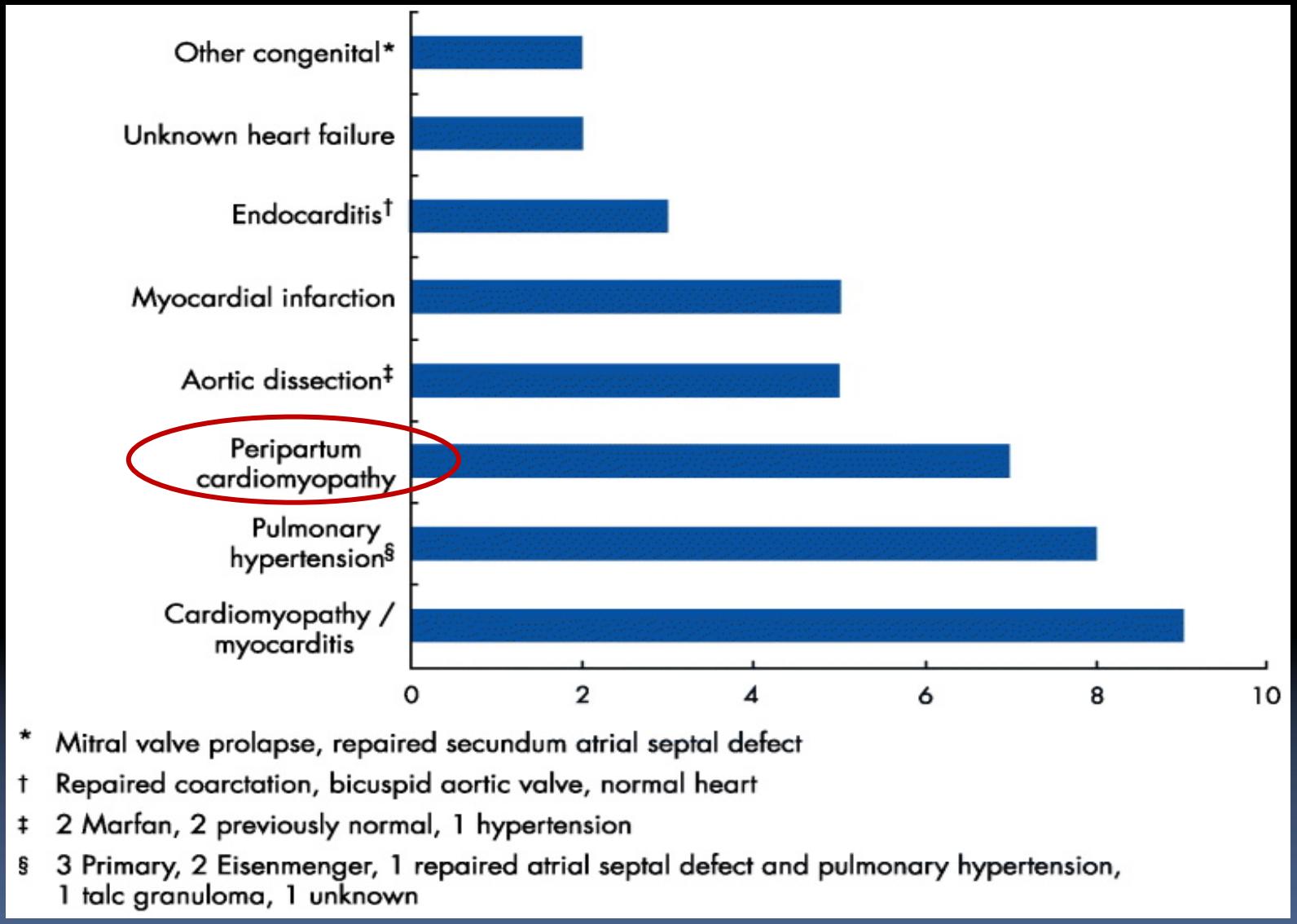
Sara J. Whitehead, MD, MPH, Cynthia J. Berg, MD, MPH, and Jeani Chang, MPH

Table 1. Types of Cardiomyopathy Among Pregnancy-Related Deaths, United States, 1991–1997

Cardiomyopathy type	*n*	%*
Peripartum cardiomyopathy	171	70
Other cardiomyopathies	49	20
Other idiopathic dilated	10	4
Hypertrophic	9	4
Hypertensive	6	2
Thyroid disease	7	3
Congenital heart disease	3	1
HIV	3	1
Diabetes	2	1
Connective tissue disease	3	1
Other	6	2
Cardiomyopathy of unknown type	25	10
Total	245	100

The American College of Obstetricians and Gynecologists
Obstet Gynecol 2003;102:1326-31

PREGNANCY IN HEART DISEASE



* Mitral valve prolapse, repaired secundum atrial septal defect

† Repaired coarctation, bicuspid aortic valve, normal heart

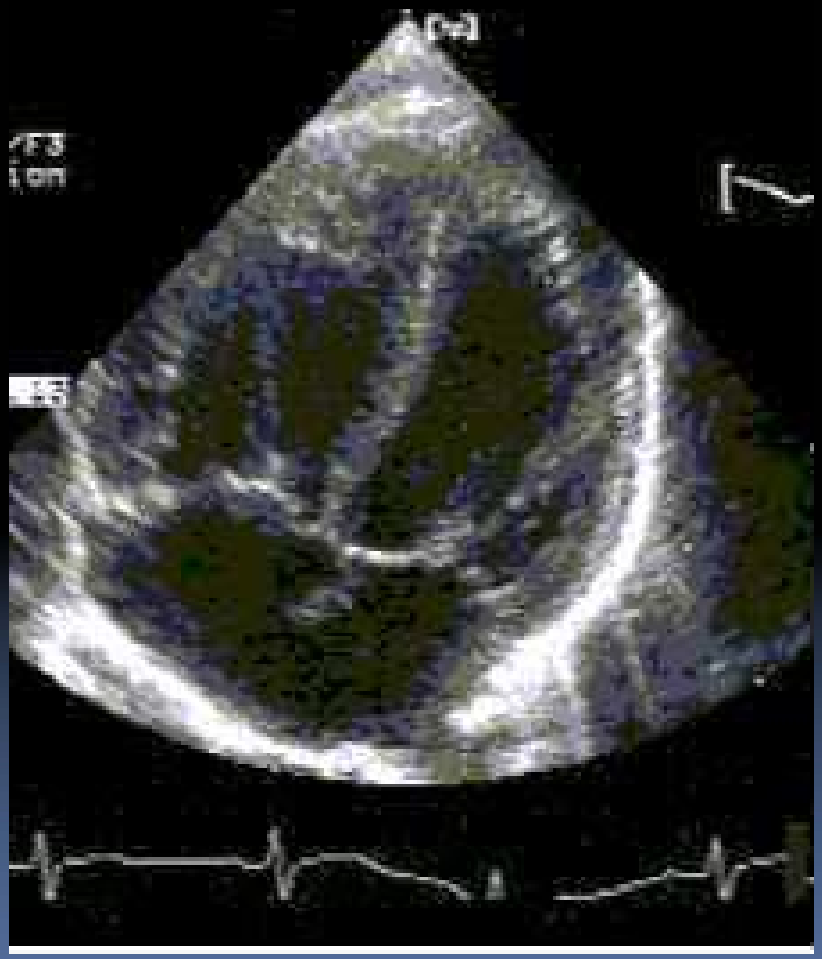
‡ 2 Marfan, 2 previously normal, 1 hypertension

§ 3 Primary, 2 Eisenmenger, 1 repaired atrial septal defect and pulmonary hypertension, 1 talc granuloma, 1 unknown

Figure 1 Cardiac causes of maternal deaths in the UK: confidential enquiry into maternal deaths 1997–99 (total maternal deaths = 409, cardiac deaths = 41).[1]

Heart 2004;**90**:450–456.

Definição



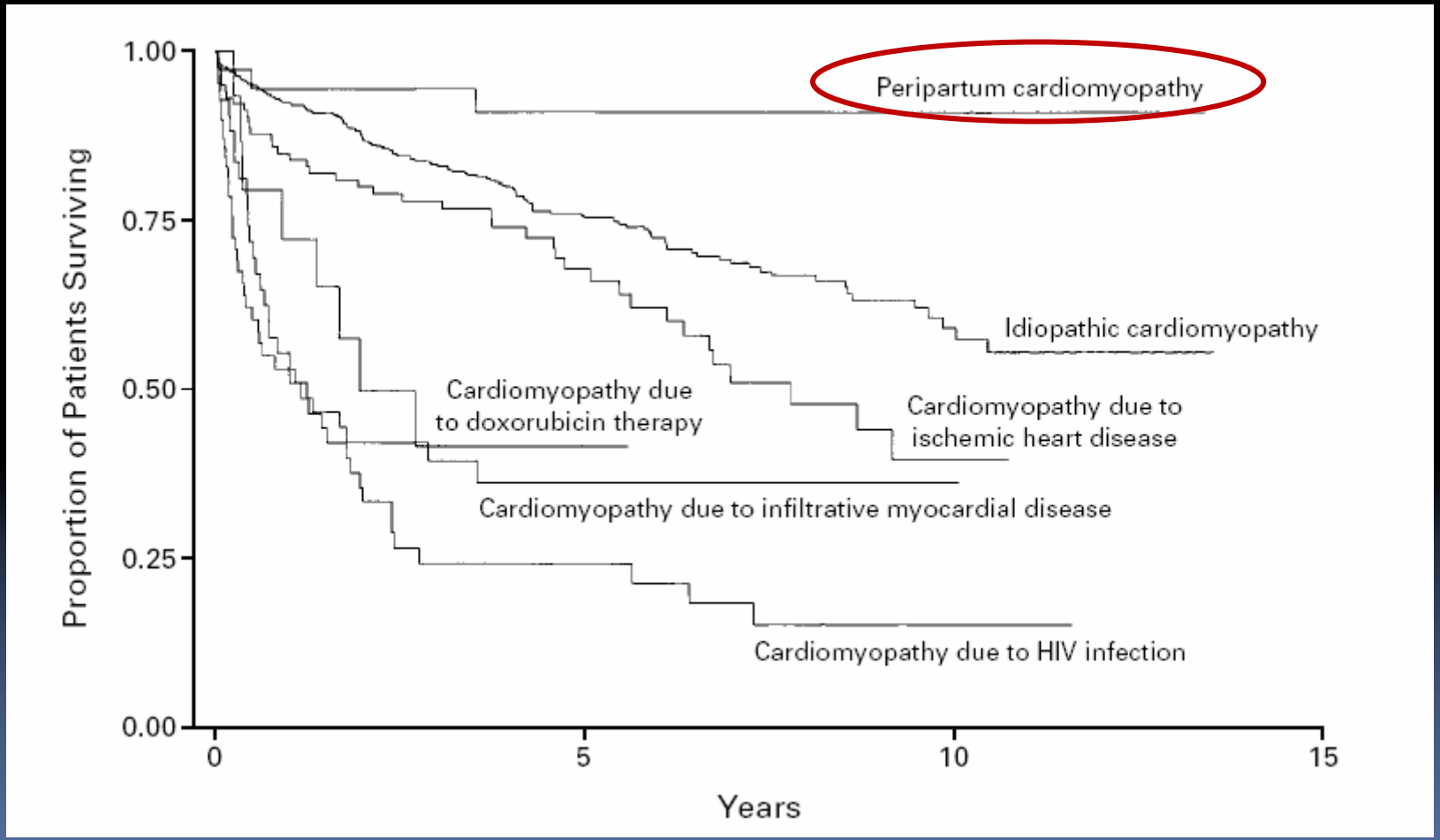
1. ICC no último mês de gravidez ou após 5 meses de pós-parto
2. Ausência de – DCV-prévia à gestação
3. Ecocardiograma:

- FE< 45%
- Fração de Encurt. <30%
- Dimensão diastólica final >2,7cm/m2

JAMA, 2000;283:1184

UNDERLYING CAUSES AND LONG-TERM SURVIVAL IN PATIENTS WITH INITIALLY UNEXPLAINED CARDIOMYOPATHY

G. Michael Felker, M.D., Richard E. Thompson, Ph.D., Joshua M. Hare, M.D., Ralph H. Hruban, M.D., Diedre E. Clemetson, David L. Howard, Kenneth L. Baughman, M.D., and Edward K. Kasper, M.D.



NEJM 2000;342:1077-84

Frequency of Peripartum Cardiomyopathy

Lisa M. Mielniczuk, MD[a,*], Kathryn Williams, MS[b], Darryl R. Davis, MD[b], Anthony S.L. Tang, MD[b], Robert Lemery, MD[b], Martin S. Green, MD[b], Michael H. Gollob, MD[b], Haissam Haddad, MD[b], and David H. Birnie, MD[b]

Table 2
Incidence of peripartum cardiomyopathy during the study

Period	Live Births	Cases of PC	PC Incidence (no. of live births/1 case)
2000–2002	12,106,473	5,432	2,229
1996–1998	11,781,864	3,508	3,359
1994–1996	11,743,850	3,601	3,261
1990–1993	16,334,373	3,755	4,350
Total	51,966,560	16,296	3,189

J Cardiol 2006;97: 1765-1768

INCIDÊNCIA MUNDIAL

Authors	*Incidence*	*Year*	*Location*
Cunningham et al.[5]	1:15,000	1986	Dallas, Tex.
Demakis et al.[4]	1:8400	1971	Chicago, Ill.
Hsieh et al.[76]	1:6000	1992	Taiwan, China
Woolford[8]	1:4000	1952	Cincinnati, Ohio
Seftel and Susser[6]	1:3000	1961	Johannesburg, South Africa
Lampert et al.*	1:1400	1994	Chicago, Ill.
Pierce et al.[9]	1:1300	1963	Little Rock, Ark.
Davidson and Perry[7]	1:100	1978	Zaria, Nigeria

*Unpublished data.

Lampert, Mark B. MD; Lang, Roberto M. et al. Am Heart J 1995;130:860-70.Peripartum cardiomyopathy

10/07/2007

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Ao exame físico, palidez cutânea mucosa, sudorese fria, hipotensão, estertores subcrepitantes bibasais, 3ª bulha, taquicardica .

ECG – taquicardia sinusal

Paciente foi imediatamente entubada, encaminhada a UTI .

Postnatal pre-cordial pain. Pulmonary embolism or peripartum cardiomyopathy

B Quinn, B Doyle, J McInerney

Figure 1 Chest radiograph showing pulmonary oedema and an increased cardiothoracic ratio.

Mulher de 36 anos – no 7º PO de cesárea – Entrada na emergência com dispnéia aos esforços, dor torácica e escarro hemoptóicos.

CASE REPORT

A 36 year old white woman was referred to the emergency department by her general practitioner with a diagnosis of suspected PE. She had had a caesarean section seven days previously, with a three day history of exertional precordial discomfort, dyspnoea on exertion, and right calf swelling.

Emerg Med J 2004;21:746-747

Peripartum Cardiomyopathy Presenting as an Acute Mvocardial Infarction

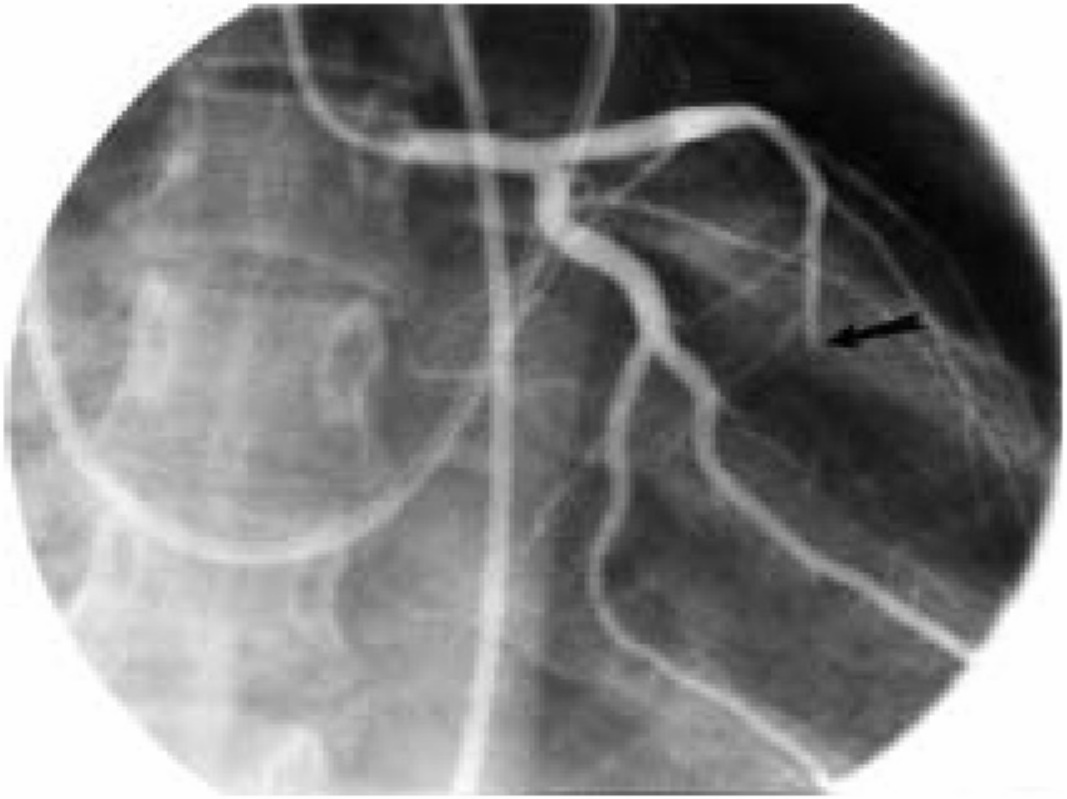


Figure 2. Coronary angiogram showing occluded left anterior descending artery (arrow) and distal flow consistent with embolus.

Mayo Clin Proc. 2002;77:500-501

CASE REPORTS

Circ J 2002; **66**: 863–865

Peripartum Cardiomyopathy and Biventricular Thrombi

Isao Nishi, MD; Toshiyuki Ishimitsu, MD; Tomoko Ishizu, MD;
Yukihiro Ueno, MD; Akihiro Suzuki, MD; Yoshihiro Seo, MD;
Sadanori Ohtsuka, MD; Keiji Iida, MD; Iwao Yamaguchi, MD

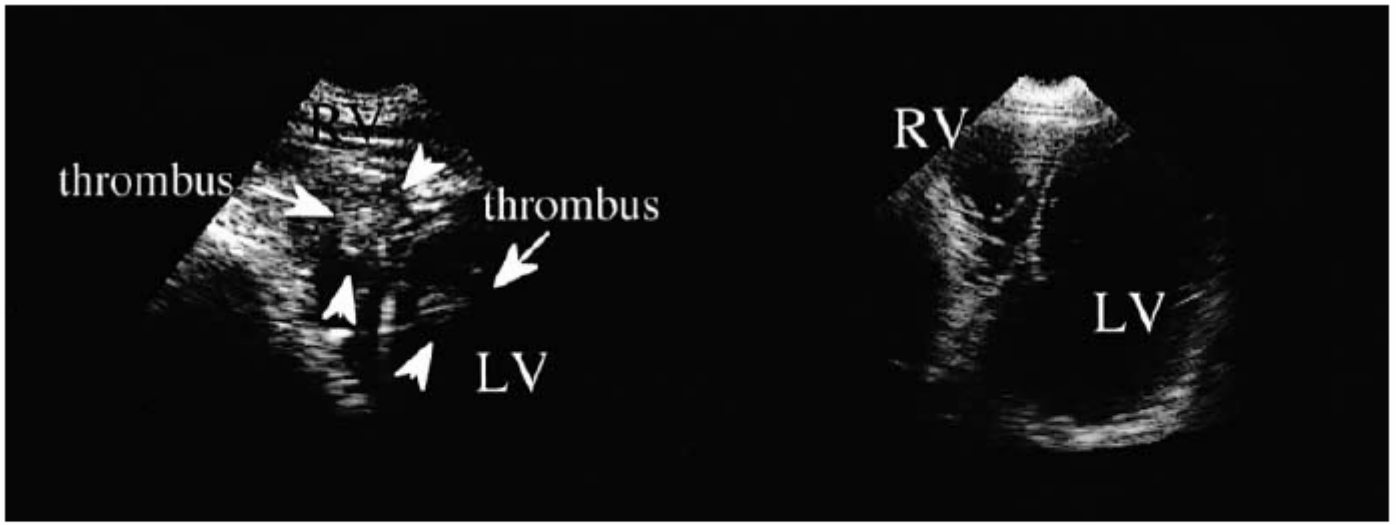


Fig 2. Echocardiography showing apical thrombi, which measured 10 mm in diameter at presentation, within both ventricles (A, left), but which had disappeared 4 days after intravenous heparin therapy (B, right). LV, left ventricle; RV, right ventricle.

Natural Course of Peripartum Cardiomyopathy

By JOHN G. DEMAKIS, M.D., SHAHBUDIN H. RAHIMTOOLA, M.B., M.R.C.P.E., GEORGE C. SUTTON, M.D., W. ROBERT MEADOWS, M.D., PAUL B. SZANTO, M.D., JOHN R. TOBIN, M.D., AND ROLF M. GUNNAR, M.S., M.D.

PERIPARTUM CARDIOMYOPATHY

Table 2

Presenting Clinical Manifestations of Patients with Peripartum Cardiomyopathy

Symptoms		
Paroxysmal nocturnal dyspnea	22	(81%)
Dyspnea on exertion	20	(74%)
Cough	19	(70%)
Orthopnea	19	(70%)
Chest pain	13	(48%)
Upper abdominal discomfort	13	(48%)
Hemoptysis	7	(26%)
Palpitation	2	(7%)
Hemiplegia	1	(4%)
Signs		
Cardiomegaly	27	(100%)
Gallop rhythm (S_3 sound)	27	(100%)
Edema	13	(48%)
Mitral holosystolic murmur	4	(15%)

Table 3

Initial Electrocardiographic Findings in 27 Women with PPCM

Left ventricular hypertrophy with inverted T waves	12
Normal or low voltage QRS complexes with inverted T waves	9
Nonspecific ST-T wave abnormalities	5
Q waves in V_1 - V_3	1
Arrhythmia (atrial fibrillation)	1

Circulation, Volume XLIV, December 1971

Circulation, Volume XLIV, December 1971

Peripartum Cardiomyopathy

By JOHN G. DEMAKIS, M.D., AND SHAHBUDIN H. RAHIMTOOLA, M.D.

PERIPARTUM CARDIOMYOPATHY

Circulation, Volume XLIV, November 1971

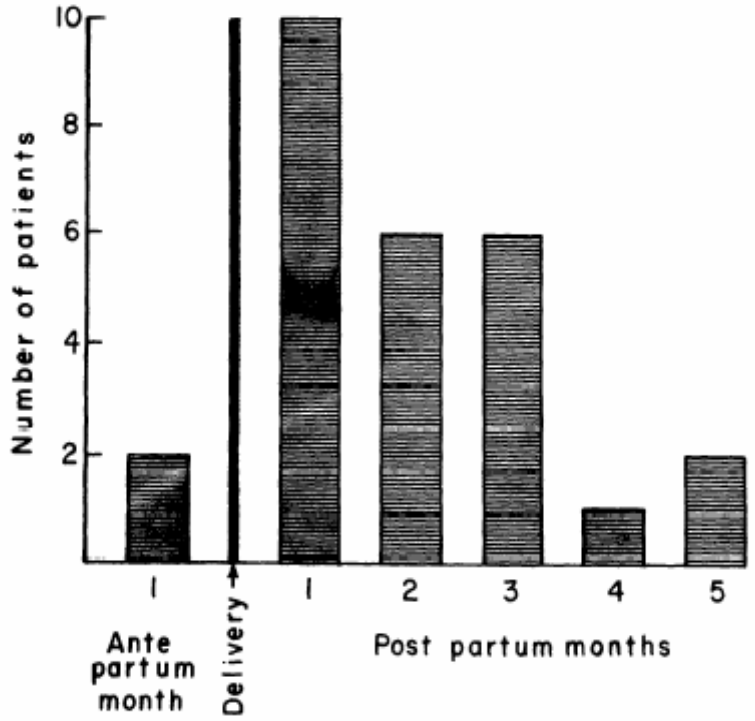


Figure 1

The frequency distribution of onset of PPCM in 27 women in relationship to delivery.

Circulation ;1971

Pregnancy-Associated Cardiomyopathy

Clinical Characteristics and a Comparison Between Early and Late Presentation

Uri Elkayam, MD; Mohammed W. Akhter, MD; Harpreet Singh, MD; Salman Khan, MD; Fahed Bitar, MD; Afshan Hameed, MD; Avraham Shotan, MD

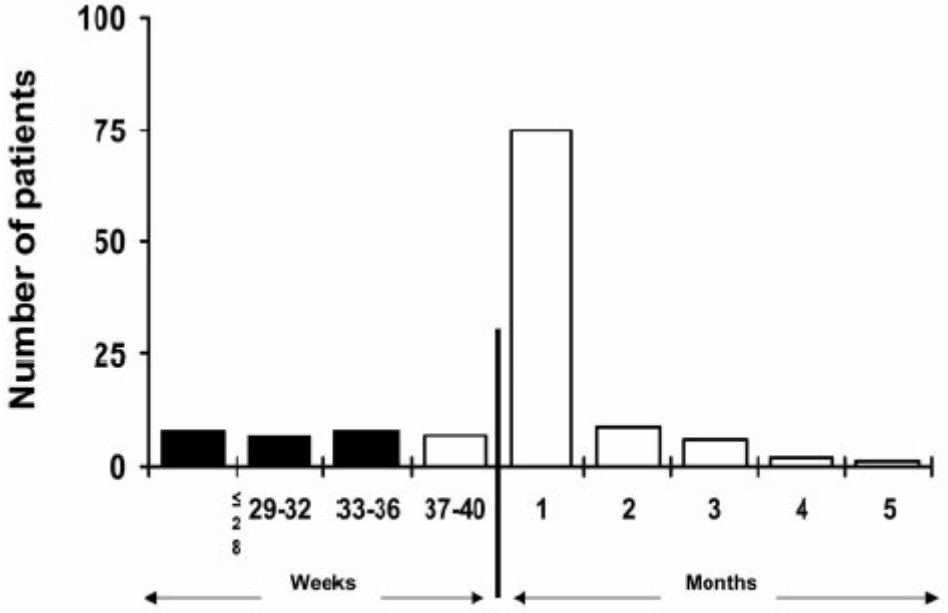
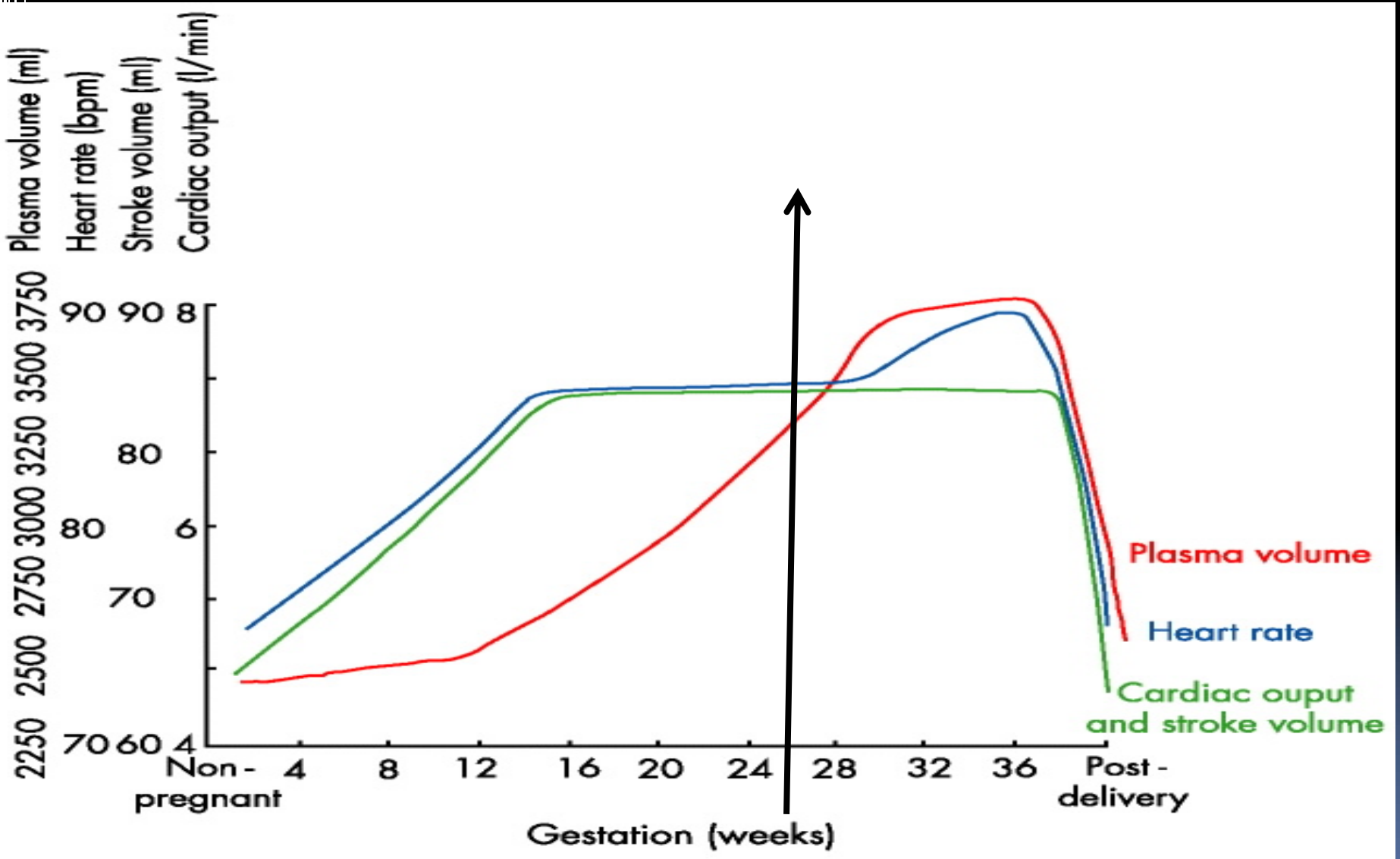


Figure 1. Time of diagnosis of cardiomyopathy in 123 patients. Black bars represent 23 patients with early PACM; white bars, 100 patients with traditional PPCM.

Circulation 2005;111:2050-2055

HEMODINÂMICA CARDIOVASCULAR NA GESTAÇÃO



Heart 2004;**90**:450–456.

Biópsia miocárdica

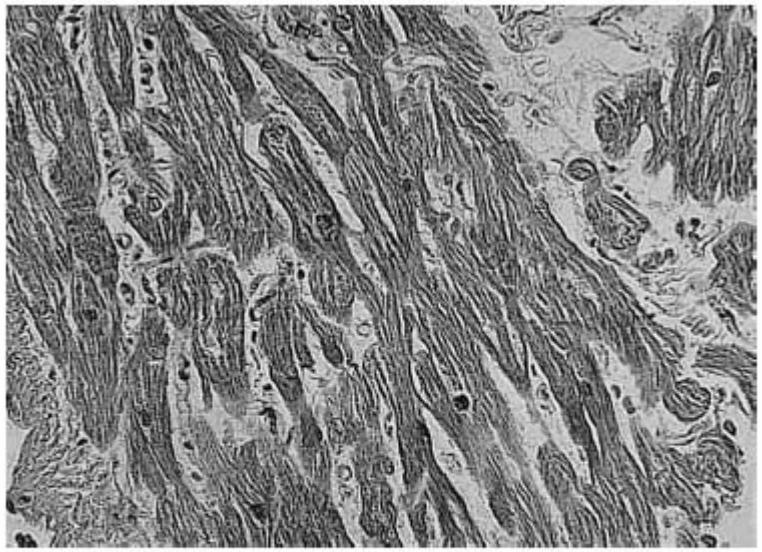
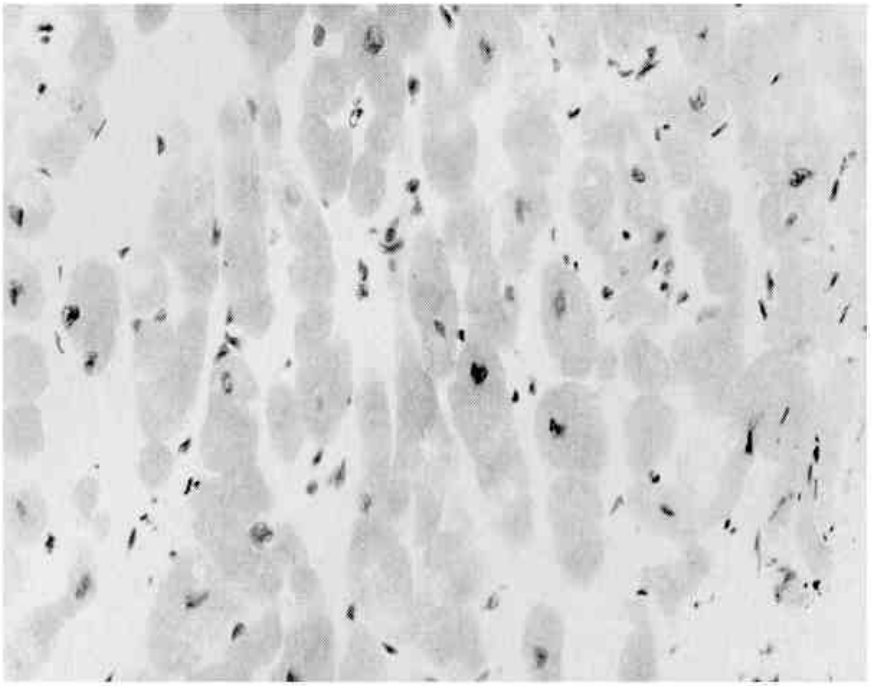
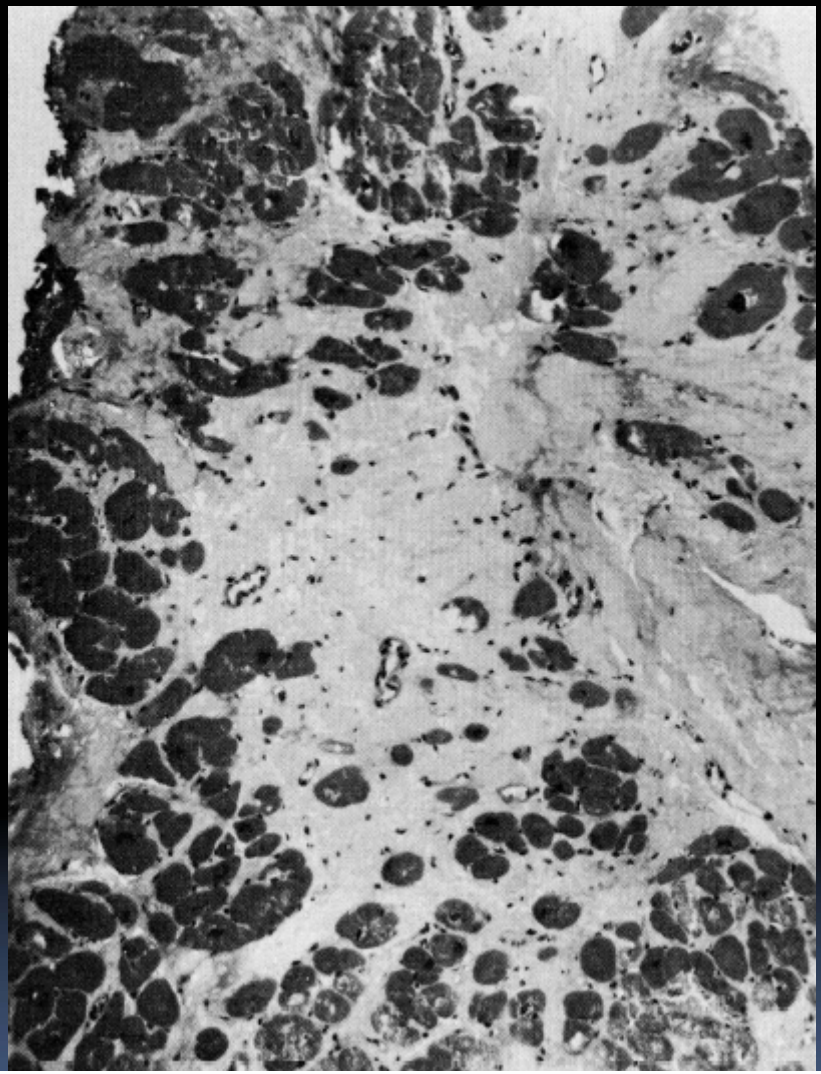


Fig 2. Histological examination of the sample from the left ventricular apex taken during implantation of the mechanical assist system shows irregular sized myocytes with swollen nucleus and moderate interstitial fibrosis. No obvious infiltration of inflammatory cells can be seen (Hematoxyline–eosin; ×100).



Infiltrado inflamatório difuso (linfocitário)
Necrose focal
Fibrose



Histological section of myocardial biopsy specimen taken from the outflow tract of the right ventricle during exploratory thoracotomy from a patient in group B. There is extensive myocardial fibrosis. Mallory stain ×105.

High prevalence of viral genomes and inflammation in peripartum cardiomyopathy

Burkhard D. Bültmann, MD,[a,*,†] Karin Klingel, MD,[a,†] Michael Näbauer, MD,[c] Diethelm Wallwiener, MD,[b] Reinhard Kandolf, MD, PhD[a]

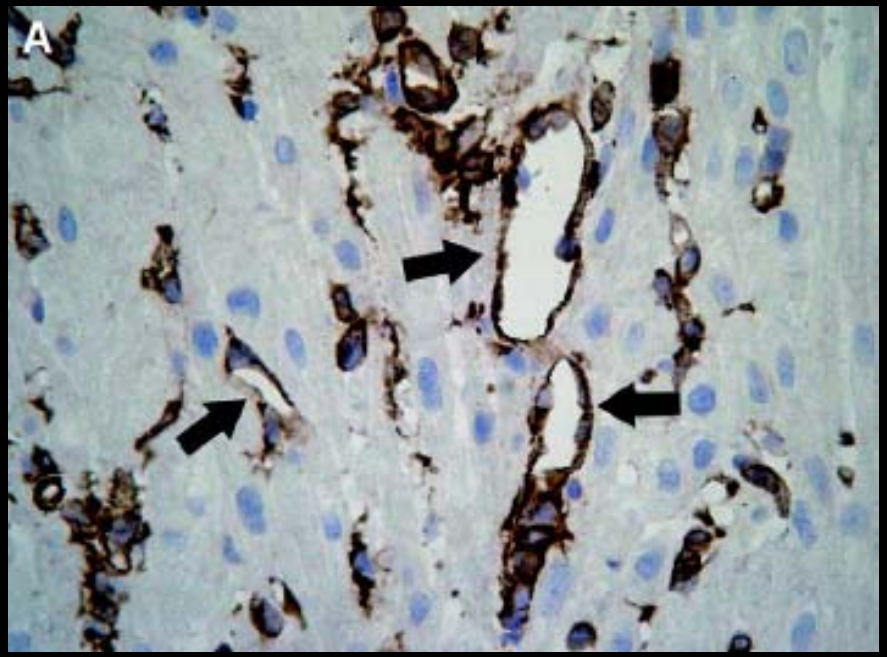
Table Characteristics of patients and EMBs after postpartal onset of disease

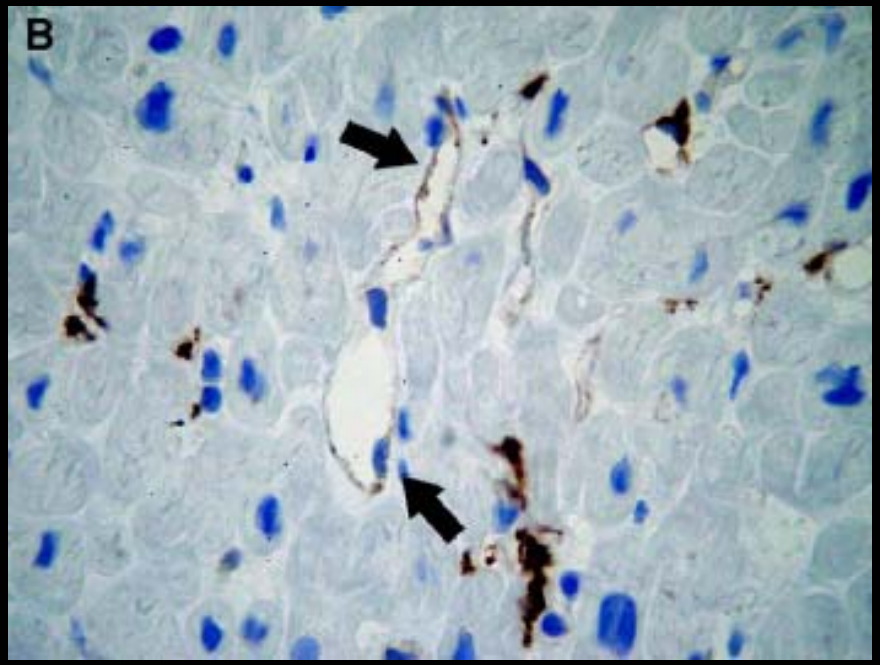
Patient	Age (y)	Time interval between onset of cardiac disease and EMB (mo)	Histologic evidence	Left ventricular ejection fraction: At the time of EMB	Left ventricular ejection fraction: After therapy: follow-up, 3-6 mo*	Viral genome
1	31	0.25	Borderline myocarditis	32	Normal	—
2	22	0.5	Borderline myocarditis	29	Normal	—
3	26	1.5	Borderline myocarditis	61	Normal	—
4	22	2.5	Borderline myocarditis	30	Normal	—
5	32	0.5	gs	28	Normal	—
6	31	5	gs	54	Normal	—
7	37	1	ditis	45	Improved	PVB19
8	30	1.5	ditis	48	Improved	PVB19
9	28	5	ditis	45	Improved	PVB19
10	26	3	ditis	20	Improved	EBV
11	37	0.25	ditis	35	Improved	HHV6
12	38	5	ditis	15	Improved	HHV6
13	30	1	ditis	48	Improved	HCMV
14	36	0.5	Nonspecific findings	40	Improved	—
15	35	0.75	Nonspecific findings	35	Improved	—
16	33	1	Borderline myocarditis	23	Improved	—
17	34	1	Borderline myocarditis	30	Improved	—
18	27	2	Borderline myocarditis	20	Improved	—
19	34	4	Borderline myocarditis	30	Improved	—
20	27	5	Borderline myocarditis	41	Improved	—
21	27	0.25	Nonspecific findings	35	Improved	—
22	30	2	Nonspecific findings	22	Improved	—
23	29	5	Nonspecific findings	45	Improved	—
24	30	>6	Dilated cardiomyopathy with inflammation	16	Not improved	PVB19
25	38	1	Dilated cardiomyopathy with inflammation	30	Heart transplantation	—
26	28	2	Dilated cardiomyopathy with inflammation	13	Not improved	—

* All patients were treated with angiotensin-converting enzyme inhibitors, beta-blockers, and diuretics.

PVB 19
EBV
HHV6
HCMV

Am J Obstet Gynaecol 2005;193:363-5





REAÇÃO INFLAMATÓRIA endotelial (macrófagos)
PRESENÇA DE EXPRESSÃO DE HLA +
POSITIVIDADE PARA PARVOVÍRUS

Intravenous Immune Globulin in the Therapy of Peripartum Cardiomyopathy

Biykem Bozkurt, MD,* Flordeliza S. Villaneuva, MD, FACC,† Richard Holubkov, PHD,†‡
Tammy Tokarczyk, RN, BSN,† René J. Alvarez, JR., MD,† Guy A. MacGowan, MB, BCH,†
Srinivas Murali, MD, FACC,† Warren D. Rosenblum, MD,† Arthur M. Feldman, MD, PHD, FACC,†
Dennis M. McNamara, MD, FACC†
Houston, Texas and Pittsburgh, Pennsylvania

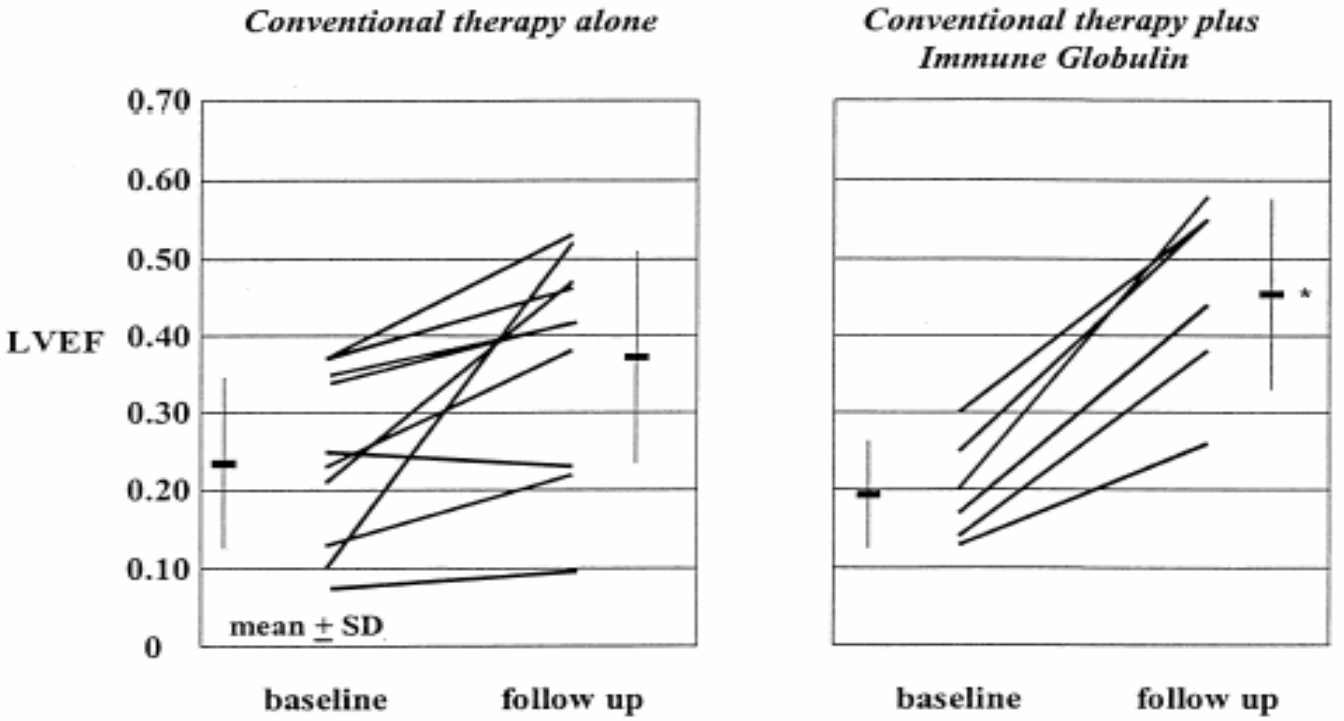


Figure 1. Change in left ventricular ejection fraction (LVEF) during early follow-up. *Improvement significantly greater than with conventional therapy alone, p = 0.042.

JACC 1999;34:177-80

Peripartum cardiomyopathy

Karen Sliwa, James Fett, Uri Elkayam

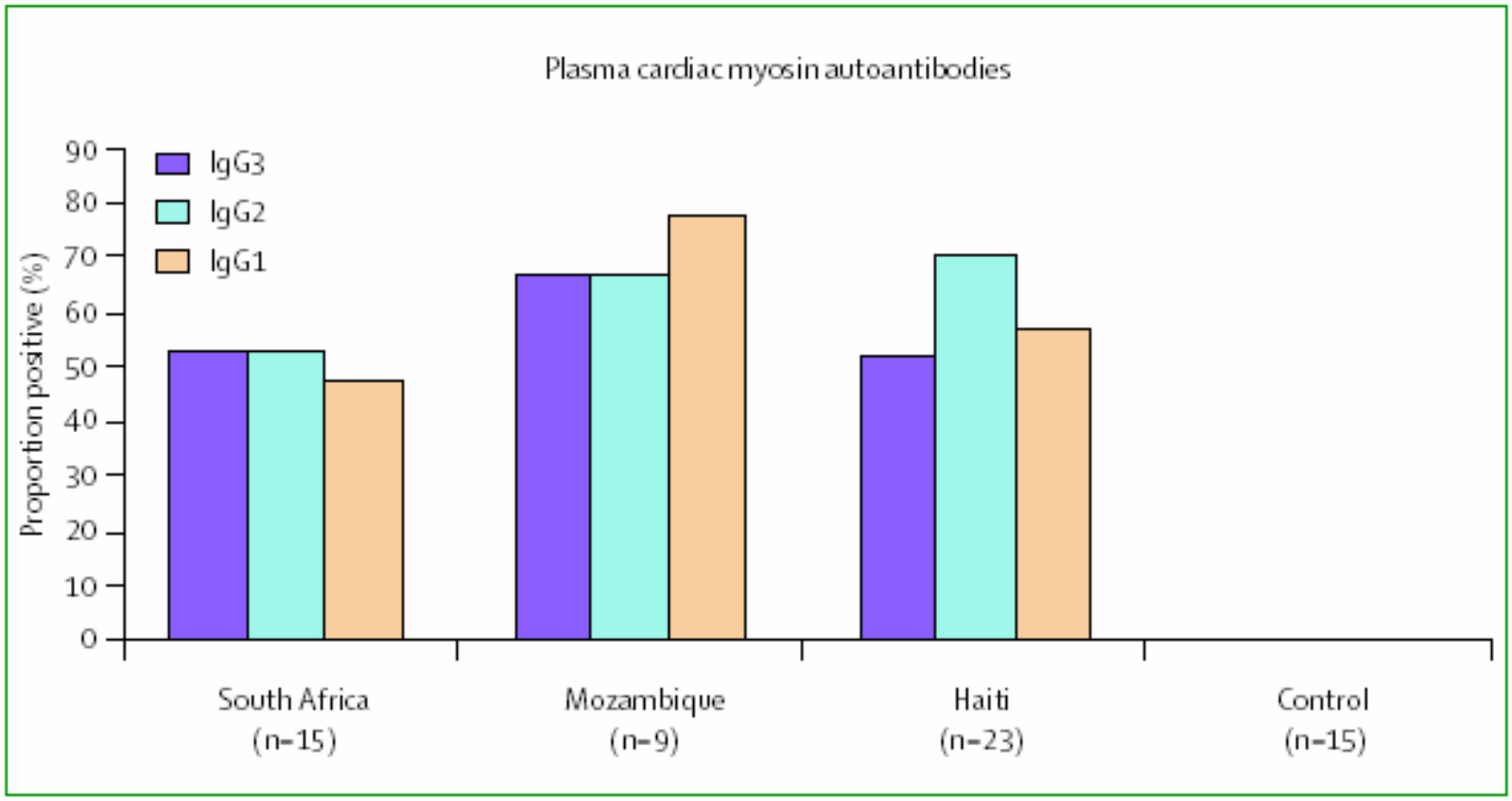


Figure 2: Comparison of immunoglobulin profiles in patients with PPCM from South Africa, Haiti, and Mozambique versus 15 healthy mothers from South Africa
Data from Warraich and colleagues.[38]

Lancet 2006; 368: 687–93

Impact of pregnancy-related heart failure on humoral immunity: Clinical relevance of G3-subclass immunoglobulins in peripartum cardiomyopathy

Rahat S. Warraich, PhD,[a] Karen Sliwa, MD,[b] Albertino Damasceno, MD,[c] Robert Carraway, MD,[d] Bruce Sundstrom, PhD,[c] Gulnaz Arif, MD,[c] Raffique Essop, MD,[b] Aftab Ansari, PhD,[c] James Fett, MD,[d] and Magdi Yacoub, FRCS[a] *Middlesex, England, UK, Johannesburg, South Africa, Deschapelles, Haiti, Atlanta, Ga, and Maputo, Mozambique*

Methods Immunoglobulins (class G and subclasses G1, G2, G3) against cardiac myosin were evaluated in 47 patients with peripartum cardiomyopathy (PPCM) from different global regions: South Africa (n = 15), Mozambique (n = 9), and Haiti (n [illegible] ctive protein, tur[illegible]

Re[illegible] ere markedly an[illegible] i: G1 58%, G2[illegible] were higher compared with DCMs from South Africa (n = 24): G1 8%, G2 8%, G3 21%, or the United Kingdom (n = 68): G1 10%, G2 8.8%, G3 22% ($P < .0001$). Hence, unlike the selective up-regulation of immunoglobulins of the G3 subclass (IgG3s) in DCM, class G and all subclass immunoglobulins were raised in PPCM. Of the serological variables, IgG3s (immunoglobulins with proinflammatory characteristics) discriminated NYHA functional status at diagnosis. IgG3-positive patients were in a higher NYHA class at initial presentation ($P < .05$).

Conclusions Immunoglobulin subclass profiles in patients with HF differ with etiology. Unlike DCM, the impact of pregnancy-related HF on humoral immunity is not subclass-restricted. However, raised levels of IgG3s may be of prognostic value in clinical PPCM. (Am Heart J 2005;150:263-9.)

Conclusão: O aumento dos Níveis de Imunoglobulina G3 pode ter valor prognóstico na MCPP.

Am Heart J 2005;150:263-9

European Heart Journal (2006) 27, 441–446
doi:10.1093/eurheartj/ehi481

Peripartum cardiomyopathy: inflammatory markers as predictors of outcome in 100 prospectively studied patients

Karen Sliwa[1]*, Olaf Förster[1], Elena Libhaber[1], James D. Fett[2], Jay Bruce Sundstrom[3], Denise Hilfiker-Kleiner[4], and Aftab A. Ansari[3]

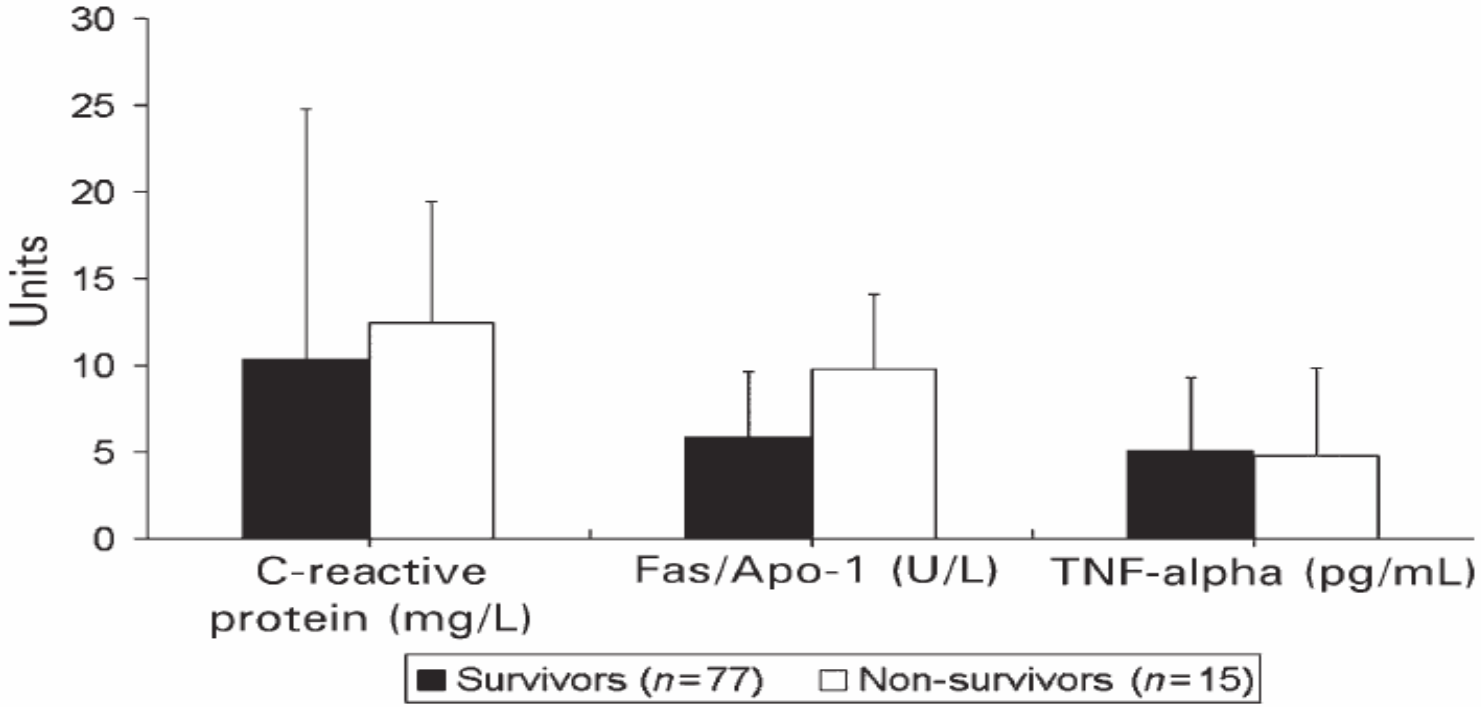


Figure 2 Baseline plasma inflammatory markers of deceased patients vs. survivors. Only differences in baseline plasma levels of Fas/Apo-1 were significant, $P = 0.002$.

HEART FAILURE AND CARDIOMYOPATHY

Troponin T measurement can predict persistent left ventricular dysfunction in peripartum cardiomyopathy

C L Hu, Y B Li, Y G Zou, J M Zhang, J B Chen, J Liu, Y H Tang, Q Z Tang, C X Huang

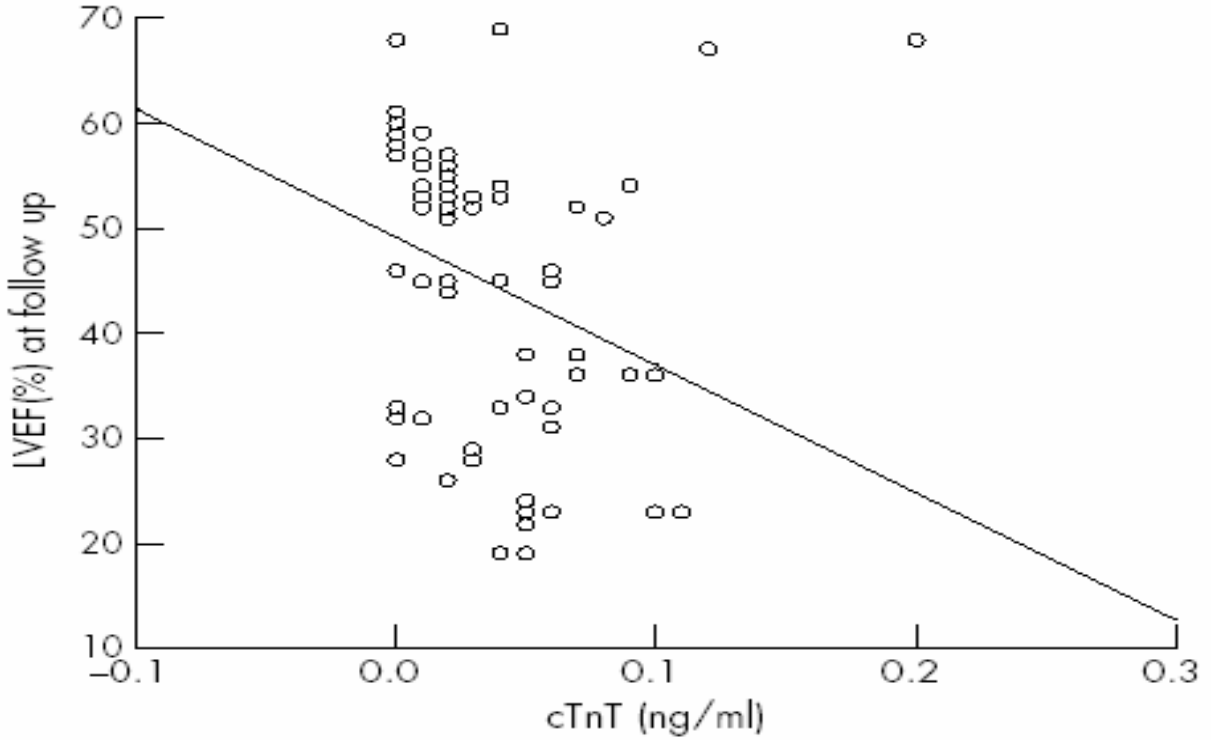
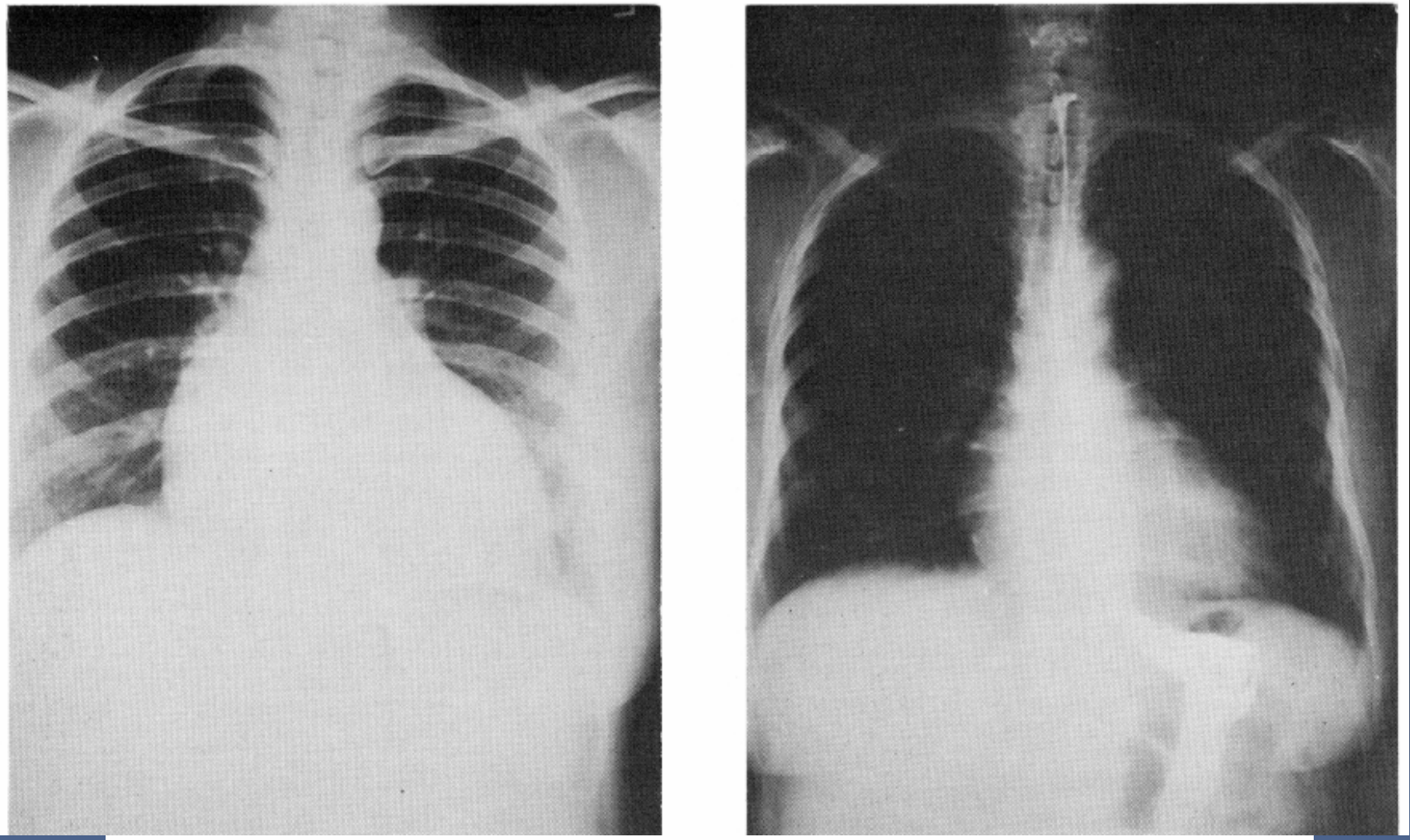
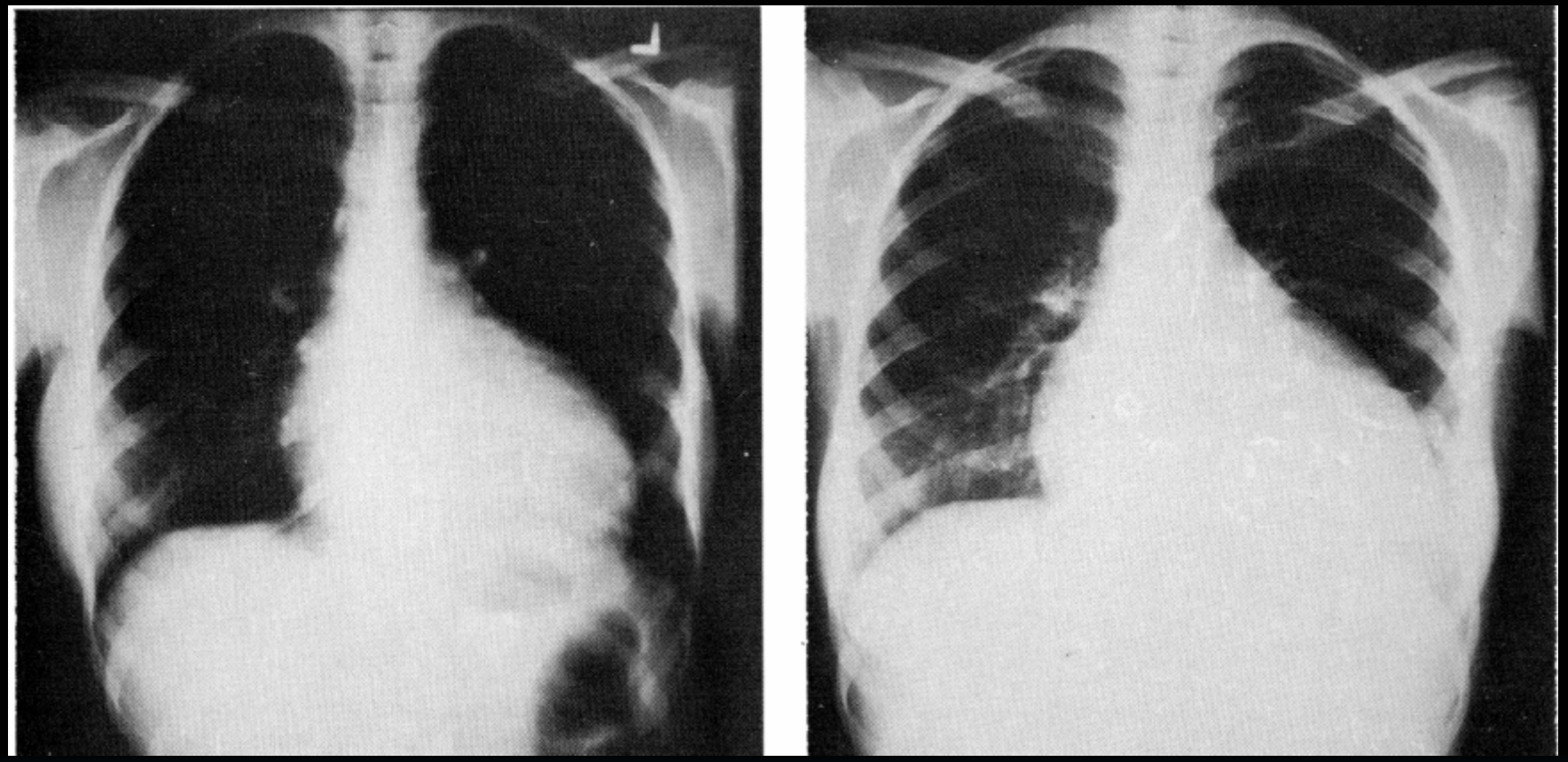


Figure 1 Cardiac troponin T concentration was correlated negatively with LVEF at follow-up.

Heart 2007;93:488-90



Chest roentgenograms of patient in group A. The admission chest X-ray (**left**) *shows cardiomegaly. On* **right**, *chest roentgenogram of same patient 6 months later, showing a normal heart size.*



Left. *Admission chest roentgenogram of patient in group B showing cardiomegaly.* **Right.** *Chest roentgenogram of same patient 1 year later, showing further increase in heart size.*

Peripartum Cardiomyopathy: National Heart, Lung, and Blood Institute and Office of Rare Diseases (National Institutes of Health) Workshop Recommendations and Review [Clinical Cardiology]

JAMA 2000;283:1181188

- **Recomendaçõe**s
- **Terapia para ICC (protocolo)**
- **Imunossupressão-**

(miocardite ou se não houve melhora após 2 semanas com Terapia convencional)

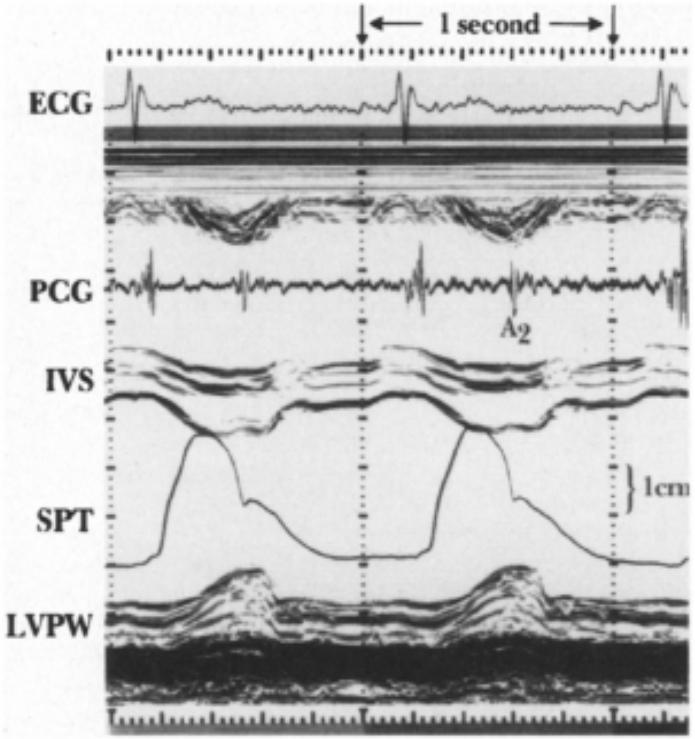
- **Subsequente gestação- controverso**

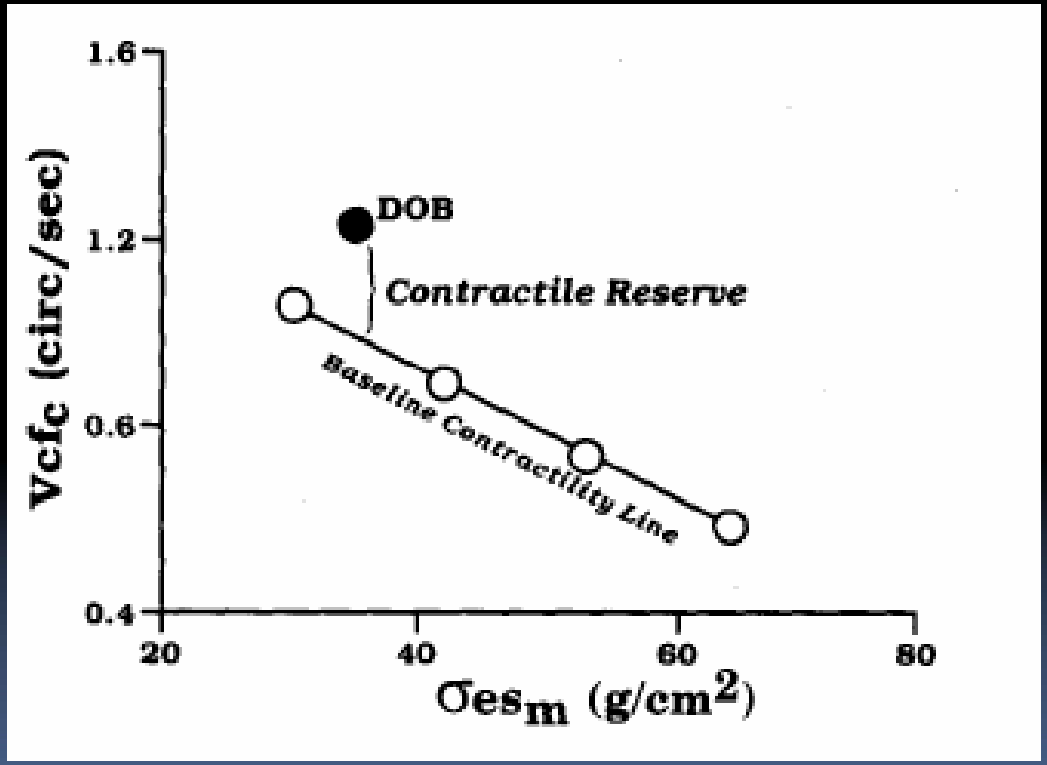
Pearson, Gail D. MD, ScD; Veille, Jean-Claude MD; Rahimtoola, Shahbudin MD; Hsia, Judith MD; Oakley, Celia M. MD; Hosenpud, Jeffrey D. MD; Ansari, Aftab MD; Baughman, Kenneth L. MD

Contractile reserve in patients with peripartum cardiomyopathy and recovered left ventricular function

Mark B. Lampert, MD, Lynn Weinert, BS, Judy Hibbard, MD, Claudia Korcarz, DVM, Marshall Lindheimer, MD, and Roberto M. Lang, MD

Chicago, Illinois





Am J Obstet Gynecol 1997;176:189-95

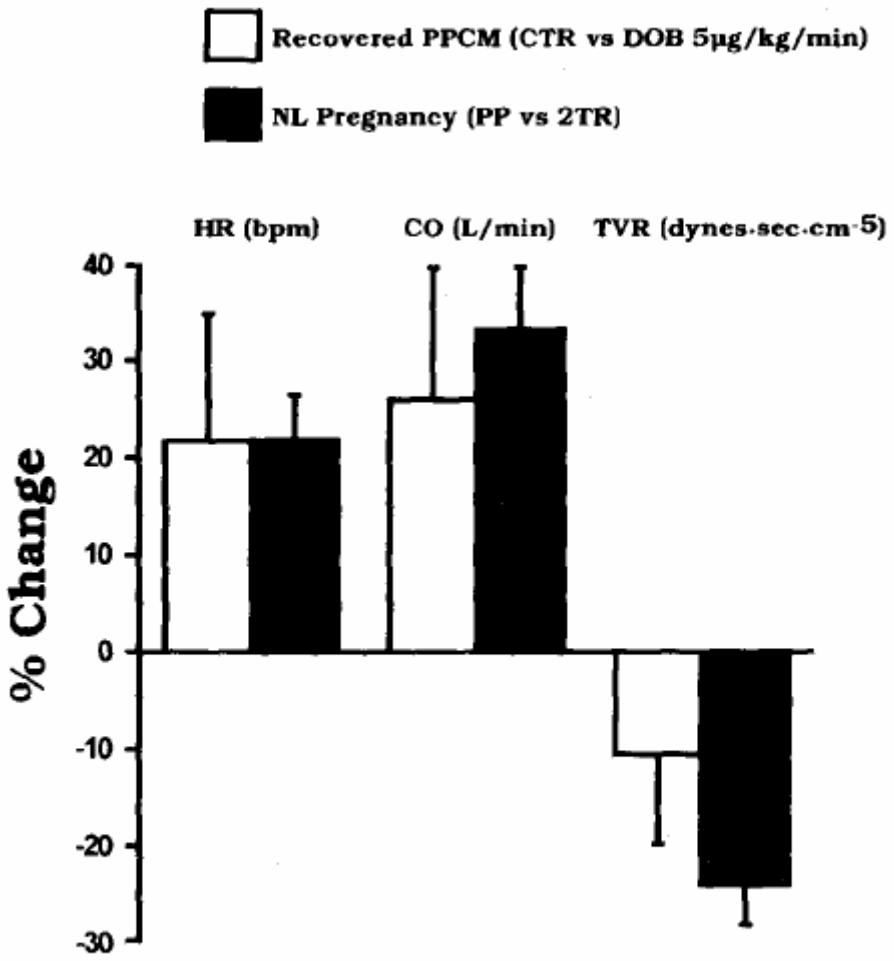
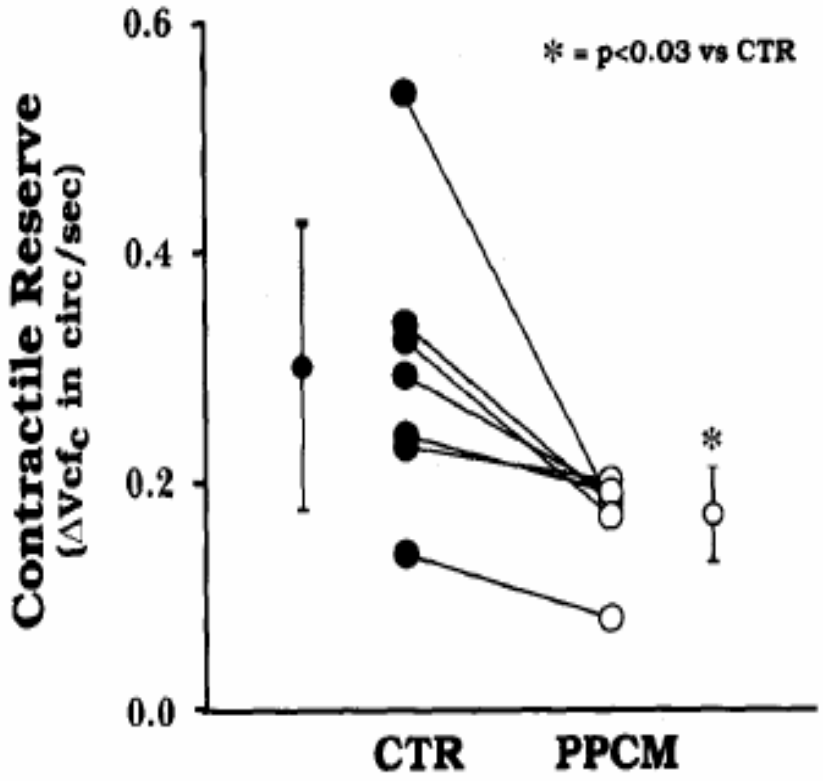
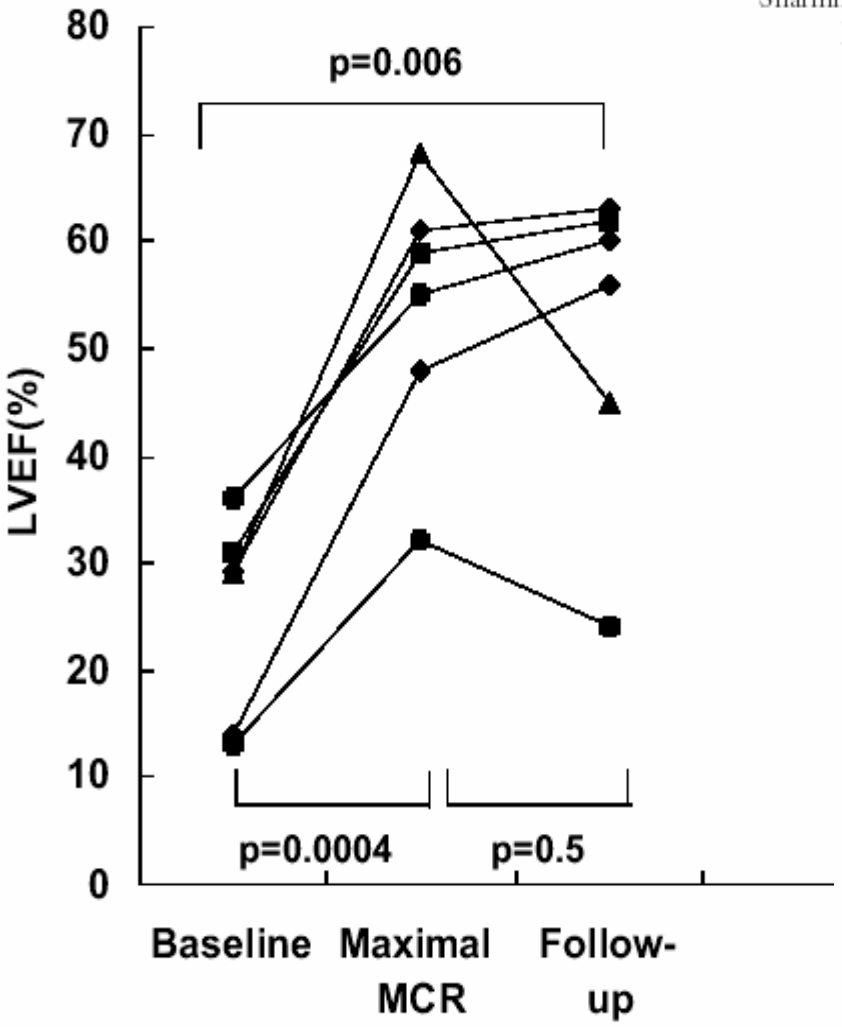


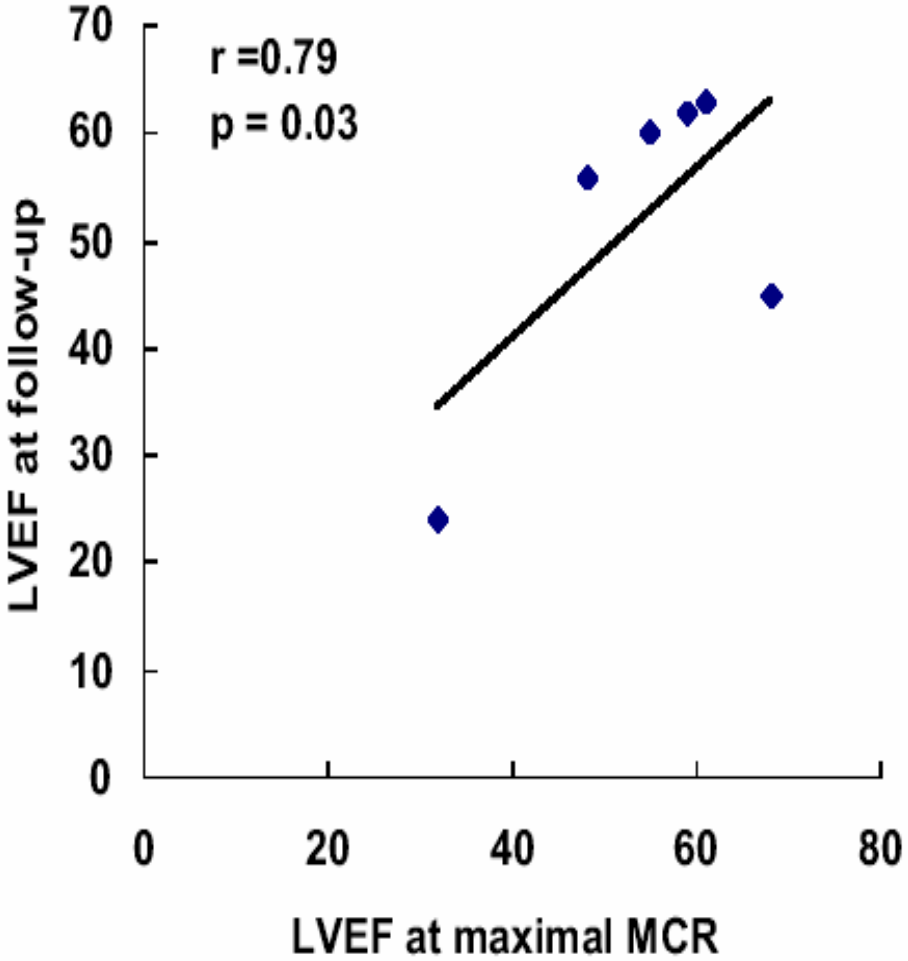
Fig. 5. Comparison of hemodynamic changes induced by dobutamine *(DOB)* in patients with recovered peripartum cardiomyopathy *(PPCM)* and in normal pregnancy *(CTR)*. These



Risk Stratification of Women with Peripartum Cardiomyopathy at Initial Presentation: A Dobutamine Stress Echocardiography Study

Sharmila Dorbala, MD, Susan Brozena, MD, Sophia Zeb, MD, Kathleen Galatro, DO, Peter Homel, PhD, Jian-Fang Ren, MD, and Farooq A. Chaudhry, MD,
Philadelphia, Pennsylvania





J Am Soc of Echoc 2005;18:45-8

Pregnant again after peripartum cardiomyopathy: to be or not to be?

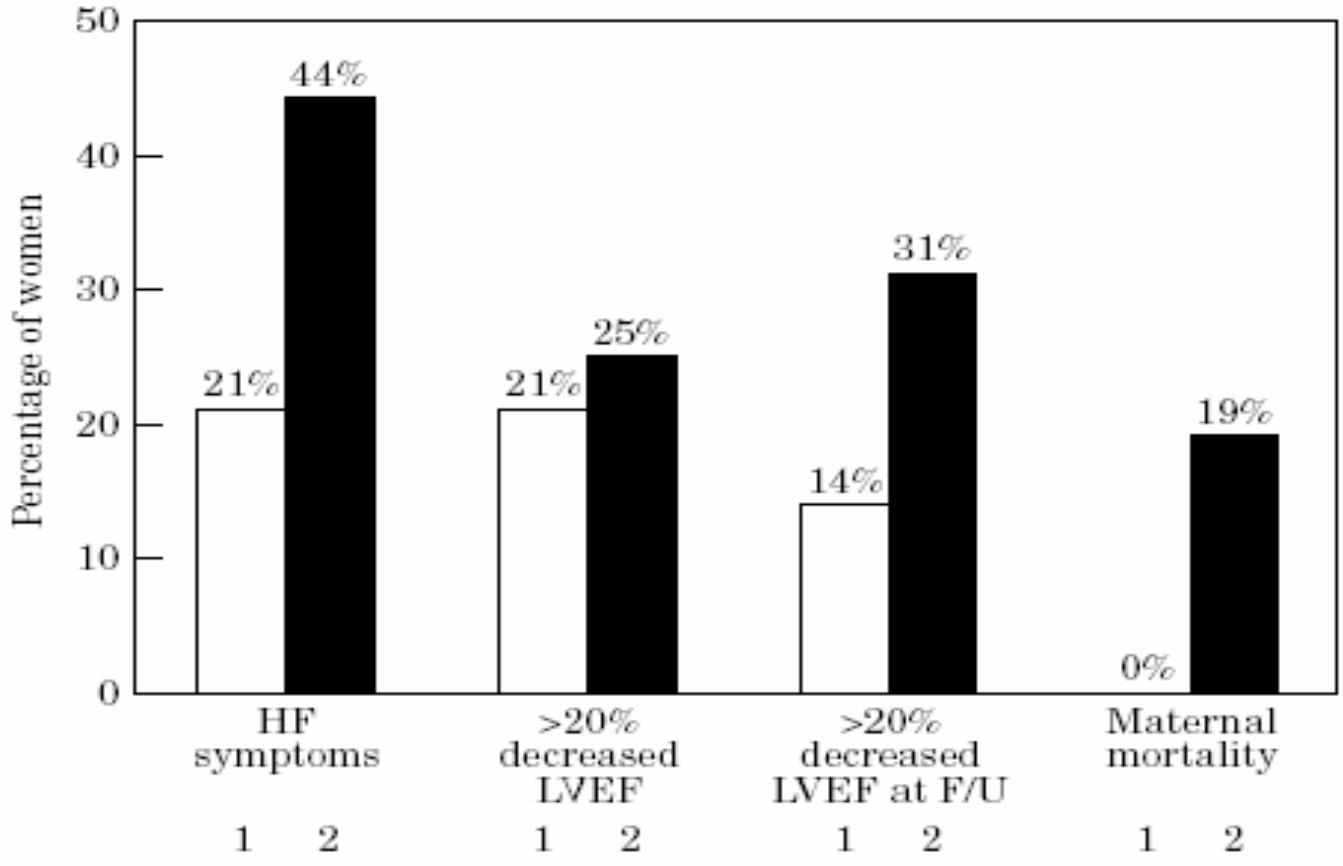


Figure 2 **Maternal complications associated with subsequent pregnancy in patients with peripartum cardiomyopathy. HF=heart fail-**

U.Elkayam .Eur Heart J 2002;23:753-756

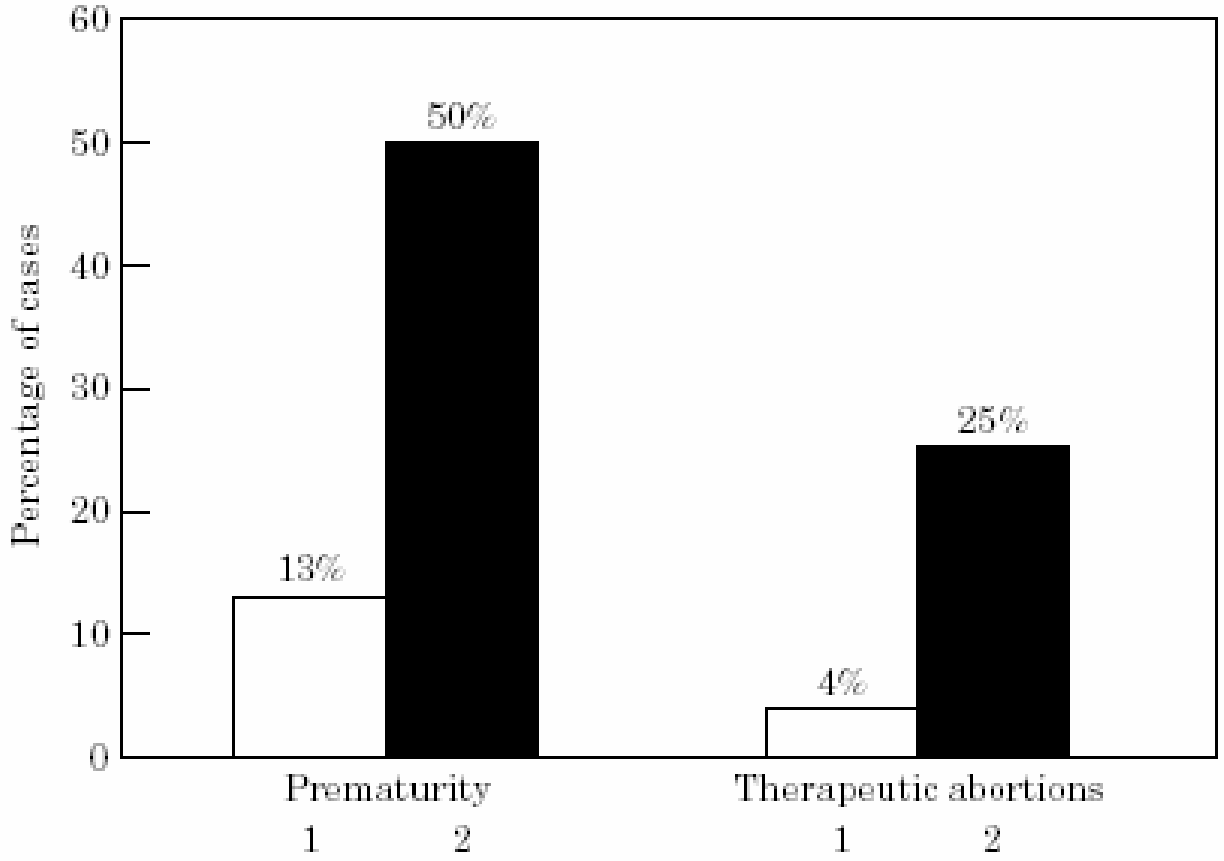


Figure 3 **Fetal complications associated with subsequent pregnancy in patients with peripartum cardiomyopathy. Group 1=women with left ventricular ejection fraction ≥50% prior to subsequent pregnancy; group 2=left ventricular ejection fraction <50%.**

Gravidez em Portadoras de Cardiomiopatia Periparto. Estudo Prospectivo e Comparativo

Walkiria Samuel Avila, Maria Elisa Carneiro de Carvalho, Cleide K. Tschaen, Eduardo Giusti Rossi, Max Grinberg, Charles Mady, José Antonio Franchini Ramires

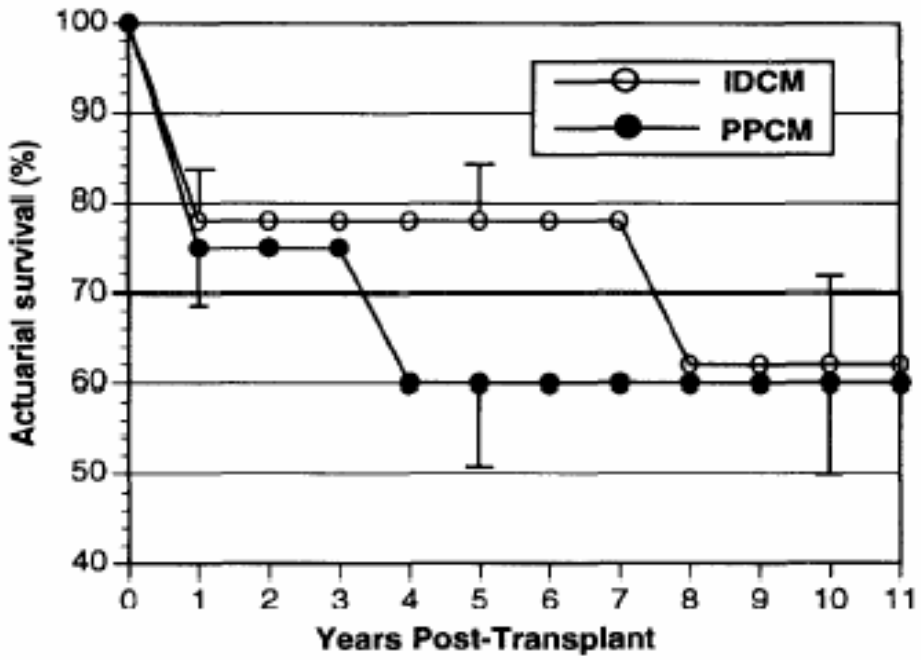
Arq Bras Cardiol, volume 79 (nº 5), 484-8, 2002 São Paulo, SP

Tabela III - Resultados comparativos entre os três subgrupos de cardiomiopatia

	Cardiomiopatia periparto		Cardiomiopatia idiopática	Valor de p
Subgru				
Idade (				
FE% pr				
Complicação cardíaca	3(27,3%)**	1(14,2%)	5(62,5%)**	p=0,01**
Morte materna	1 (9,1%)	-	1 (14,2%)	NS
FE pós-gestação	47,1± 2,1***	65,4± 4,3***	42,4± 4,5***	NS***

Conclusão: gravidez em pacientes com cardiomiopatia Dilatada está associada à morbidade materna . Função ventricular esquerda pe a determinante do prognóstico E deve ser o parâmetro no aconselhamento de nova gravidez em portadoras de MCPP

Long-term outcome after heart transplantation for peripartum cardiomyopathy



Subjects at risk

8	6	5	5	2	2	2	2	1	1	1	1	PPCM
9	7	7	6	6	6	6	6	4	2	2	2	IDCM

Fig. 1. Actuarial survival rates after heart transplantation were not significantly different between patients with peripartum cardiomyopathy *(PPCM)* and patients with idiopathic dilated cardiomyopathy *(IDCM)*. Data are expressed as mean ± SEM.

Rickenbacher et al. Am Heart J 1994;127:1318-23

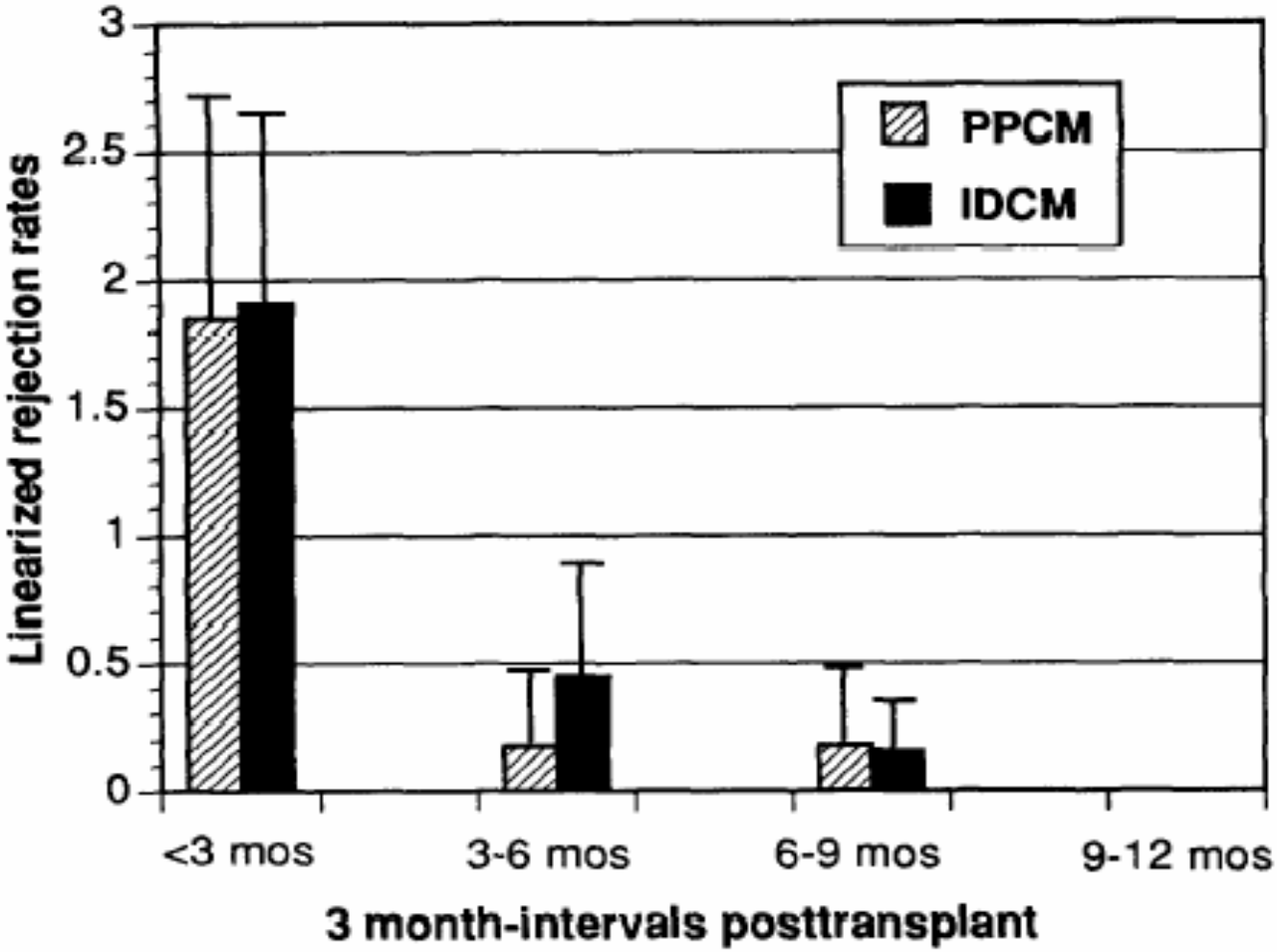


Fig. 2. Prevalence of cardiac allograft rejection in successive 3-month intervals during first year after heart transplantation for patients with peripartum cardiomyopathy *(PPCM)* and those with idiopathic dilated cardiomyopathy *(IDCM)* is expressed as rejection episodes/100 patient-days. No significant differences were observed between the two groups. Data are expressed as mean ± SD.

Rickenbacher et al. Am Heart J 1994;127:1318-23

J Heart Lung Transplant. 1998 Jul;17(7):698-702. Links

Risks of subsequent pregnancies on mother and newborn in female heart transplant recipients.

Branch KR, Wagoner LE, mcgrory CH, mannion JD, radomski JS, moritz MJ, oh Armenti VT.

Department of Surgery, Thomas Jefferson University, Philadelphia, PA, USA.

CONCLUSIONS: Post-heart transplantation pregnancies often have successful outcomes, but there is *a high incidence of prematurity and low birth weight.* Subsequent pregnancies do not seem to significantly increase the incidence of complications in either the newborn or mother or increase graft rejection or failure.

Larger studies of post transplantation pregnancies may provide more definitive information.

Insuficiência Cardíaca Diagnosticada na Gestação

- *Regina Carvalho, José Abreu, Ricardo Pereira, Mirela Vasconcelos, Denise Vasconcelos, Edson Lucena*

- Maternidade Escola Assis Chateaubriand (MEAC)
- Hospital Universitário Walter Cantídio (HUWC)

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MCPP	Idade anos	Gest.	sintomas	Comorb.	parto	Eco FE
1ª	19 a	G1	PUERP.	AIT	CES	35%
2ª	28a	G3	PUERP.	----	CES	32%
3ª	26a	G3	PARTO	SEPSIS	FM	34%
4ª	21a	G1	29 sem.	----	CES	48%
5ª	19a	G1	PUERP.	PE	CES	33%
6ª	30a	G1	39 sem.		CES	48%
7ª	31a	G1	PUERP.	PE	PV	51%
8ª	35a	G9	36s	PE	CES	45%
9ª	19a	G2	38s	MCP	CES	51%

- 36,6%-idade ≤ 20anos
- 45,4%- puerpério
- 54,5%- primíparas
- 72,7% cesárea
- 77,7% FE < 50%

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