Coalition for Networked Information
Washington, DC
December 8, 2008

- "Interactive Publication"

- Donald A.B. Lindberg, MD

Why are we interested in interactive publication?

- This is NOT just “multi-media”
- Real interactive products are already here, and more coming
- We’re not sure of the final worth, hence form
- NLM will end up responsible for preserving the bio-medical products!

Interactive publications

- Current publications with simulated interaction

Relation of Intimal Hyperplasia Thickness to Stent Size in *Paclitaxel*-Coated Stents

Esteban Escolar, MD, Gary S. Mintz, MD, Myeong-Ki Hong, MD, Cheol Whan Lee, MD, Jae-Joong Kim, MD, Neal E. Fearnot, PhD, Seong-Wook Park, MD, Seung-Jung Park, MD, and Neil J. Weissman, MD

To determine the relation of intimal hyperplasia thickness to stent size in nonpolymeric paclitaxel-coated stents, intravascular ultrasound was performed after stent implantation and at 6 months. Similar to bare metal stents, this study demonstrated that intimal hyperplasia thickness is independent of stent size. There was no deleterious effect of the increased concentration associated with using the same stent design in a smaller artery, and these results suggested that stent strut density may be a more important concept than drug concentration. ©2004 by Excerpta Medica, Inc.

(Am J Cardiol 2004;94:196–198)

who received the paclitaxel-coated stents with those who received placebo in the IVUS substudy.[2]

All IVUS imaging studies were performed after intracoronary administration of 0.2 mg of nitroglycerin. Imaging was acquired using motorized transducer pullback (0.5 mm/s) and a commercial scanner (Boston Scientific, Maple Grove, Minnesota), consisting of a 30-MHz transducer within 3.2Fr imaging sheath. Quantitative volumetric IVUS analysis was performed at an independent core laboratory (Washington Hospital Center). Using computerized planimetry (Tapemeasure, Indec Systems, Mountain View, California) the following measurements were obtained every 1 mm after deployment and at follow-up: (1) stent cross-sectional area (CSA), (2) lumen CSA, and

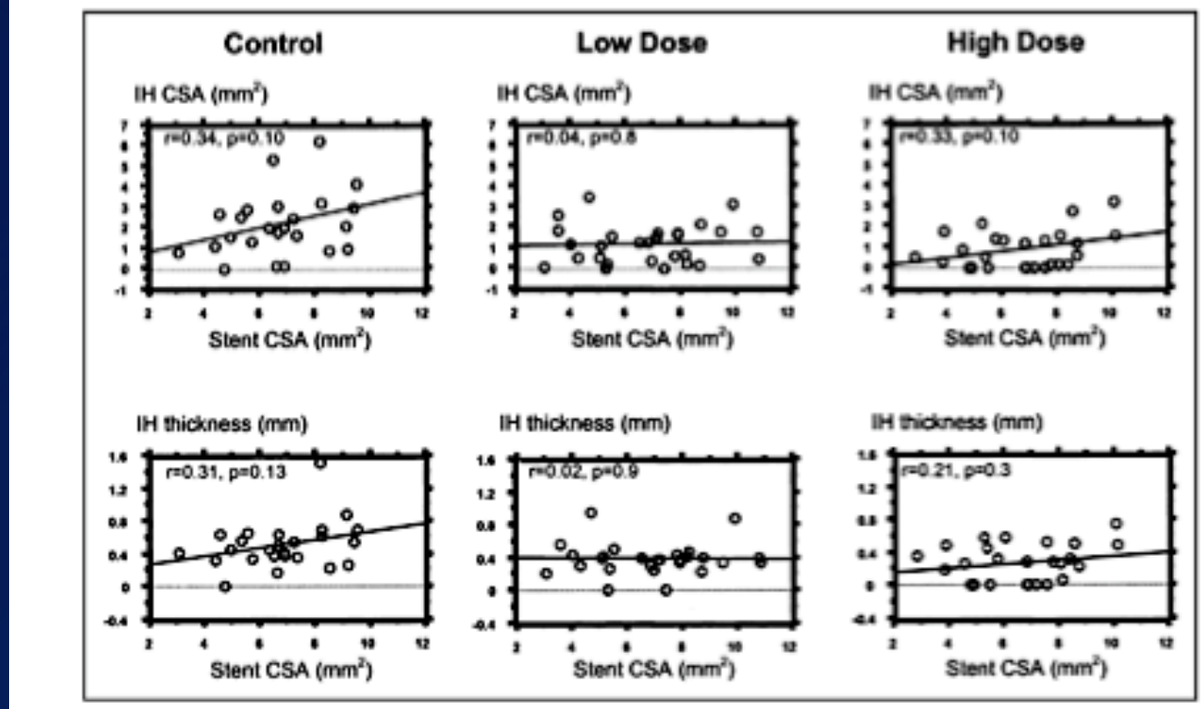

FIGURE 1. On a per-stent basis, there was no correlation between mean intimal hyperplasia (IH) CSA or thickness versus mean stent CSA in the control, low-dose, or high-dose groups.

Influence of Coronary Artery Bypass Grafting on Heart Rate Turbulence Parameters

Iwona Cygankiewicz, MD, PhD, Jerzy Krzysztof Wranicz, MD, PhD, Halina Bolinska, MD, PhD, Janusz Zaslonka, MD, PhD, Ryszard Jaszewski, MD, PhD, and Wojciech Zareba, MD, PhD

This study evaluated the influence of coronary artery bypass grafting on heart rate turbulence (HRT) parameters assessed during 1-year follow-up in patients with coronary artery disease. HRT and heart rate variability (HRV) parameters significantly worsened 3 months after surgery. After 1 year, HRV parameters and turbulence onset returned to preoperative values, whereas turbulence slope remained significantly attenuated. Our results show that there is a marked attenuation of HRT parameters in the early postoperative period, indicating an impairment of baroreflex sensitivity after coronary artery bypass grafting. Concomitant depression of HRV parameters points to dysfunction of the autonomic nervous system, provoked by perioperative attenuation, as a potential underlying cause of impaired baroreflex response.

(Am J Cardiol 2004;94:186–189)

TABLE 1 Clinical Characteristics of 76 Patients Who Underwent Coronary Artery Bypass Grafting

Clinical Characteristics	
Age (yrs)	61 ± 9
Age >60 yrs	40 (53%)
Women	8 (10%)
Systemic hypertension	50 (66%)
Diabetes mellitus	20 (26%)
Prior myocardial infarction	57 (75%)
Ejection fraction (%)	52 ± 10
<40%	6 (8%)
New York Heart Association class ≥II	2 (2%)
β blockers	66 (87%)
Calcium channel antagonists	11 (14%)
Nitrates	71 (93%)
Angiotensin-converting enzyme inhibitors	36 (47%)
Statins	58 (76%)

went elective CABG and who were eligible for HRT analysis (i.e., presence of qualified ventricular prema-

TABLE 2 Heart Rate Variability (HRV) and Heart Rate Turbulence (HRT) Parameters Before and Three Months After Coronary Artery Bypass Grafting

Variables	Before CABG (n = 76)	3 Mo After CABG (n = 76)	p Value
No. of ventricular premature complexes	26	46	0.041
HRT			
TO set (%)	−1.11	−0.64	0.027
TS (ms/RR)	8.73	6.50	0.007
TS_corrected (ms/RR)	12.36	8.23	0.036
HRV: time domain*			
Average RR (ms)	915	829	<0.001
SDNN (ms)	115	105	0.004
SDNNI (ms)	48	43	0.003
SDANN (ms)	104	91	0.010
rMSSD (ms)	28	28	0.590
pNN50 (%)	3.2	2.6	0.029
HRV: frequency domain*			
Total power (ms^2)	2,616	2,071	0.020
Ultra-low frequency (ms^2)	272	323	0.710
Very low frequency (ms^2)	1,704	1,241	0.004
Low frequency (ms^2)	425	313	<0.001
High frequency (ms^2)	132	116	0.017
Low-frequency/High-frequency ratio	3.1	2.7	0.170

Median values are shown.
*See text for explanation of time- and frequency-domain parameters.

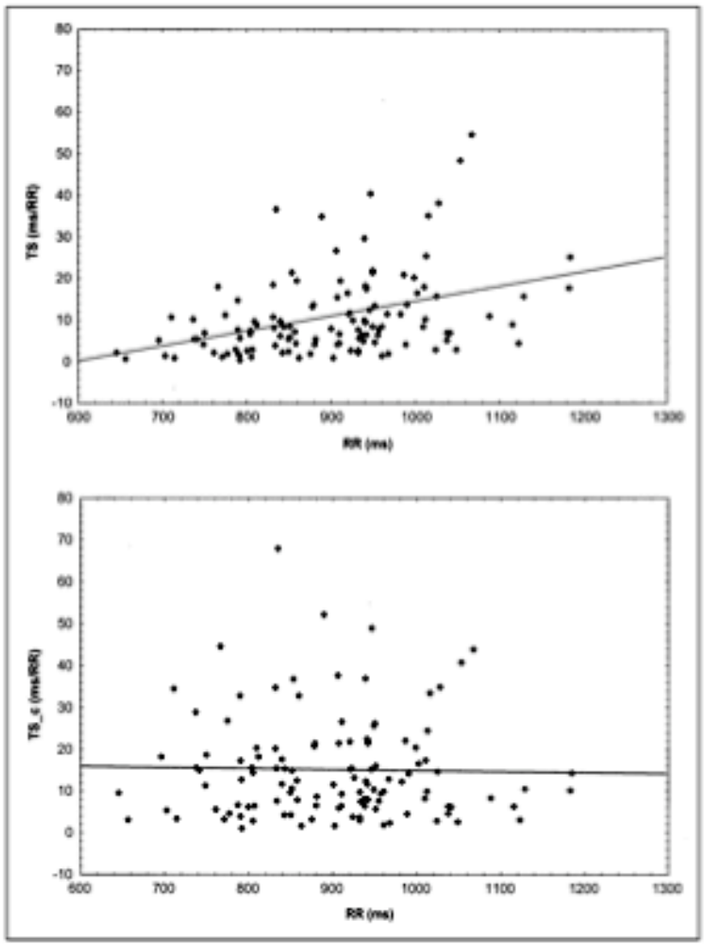

FIGURE 1. Correlation between turbulence slope and RR interval: uncorrected values of the TS *(upper panel)* and the corrected turbulence slope for RR (TS_c) with the population-based formula *(lower panel)*.

Prevalence of Drug-Induced Electrocardiographic Pattern of the Brugada Syndrome in a Healthy Population

Jean-Sylvain Hermida, MD, Serge Jandaud, MD, Jean-Luc Lemoine, MD, Claire Rodriguez-Lafrasse, PhD, Jean Delonca, MD, Cathy Bertrand, MD, Geneviève Jarry, MD, Jacques Rochette, BM, DSc, and Jean-Luc Rey, MD

To determine the prevalence of drug-induced Brugada's syndrome (BrS) electrocardiograms (ECGs) in a healthy population, a sodium channel blockade challenge was performed in previously identified subjects with BrS-compatible (BrC) ECGs. These subjects were detected in 1,000 normal patients in whom first ECGs were systematically recorded. Because of the intermittent nature of electrocardiographic modifications in BrS, second ECGs were also recorded in a representative sample of the population presenting with first ECGs with normal results. The prevalence of typical drug-induced BrS ECGs was 5 of the 1,000 patients. This value was fivefold greater than the reported prevalence of spontaneous BrS ECGs in the healthy population. ©2004 by Excerpta Medica, Inc.

(Am J Cardiol 2004;94:230–233)

The objective of this prospective study was to determine the prevalence of drug-induced Brugada's syndrome (BrS) electrocardiograms (ECGs) in a healthy population by performing a sodium channel blockade challenge in subjects with BrS-compatible (BrC) ECGs.

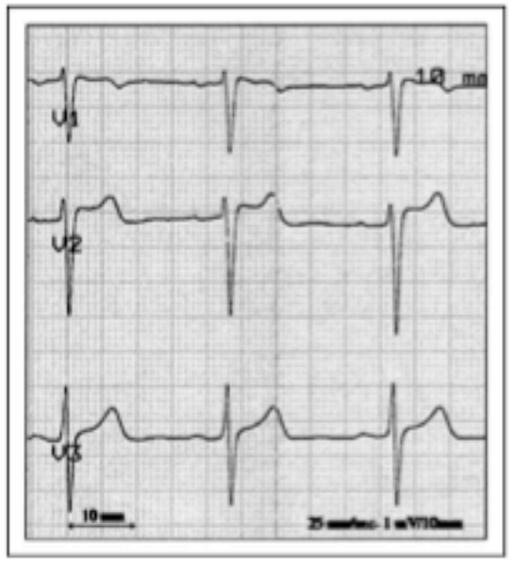

FIGURE 1. Example of a BrC ECG found in the study population. The ECG shows only a slight saddle-type ST-segment elevation in lead V_2. A diagnosis of BrS is confirmed by a positive sodium channel blockade challenge or a spontaneous transformation into a typical coved pattern.

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Dr. Donald A. B. Lindberg, Director

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1: Surg Endosc. 2003 Oct;17(10):1675. Epub 2003 Sep 29.
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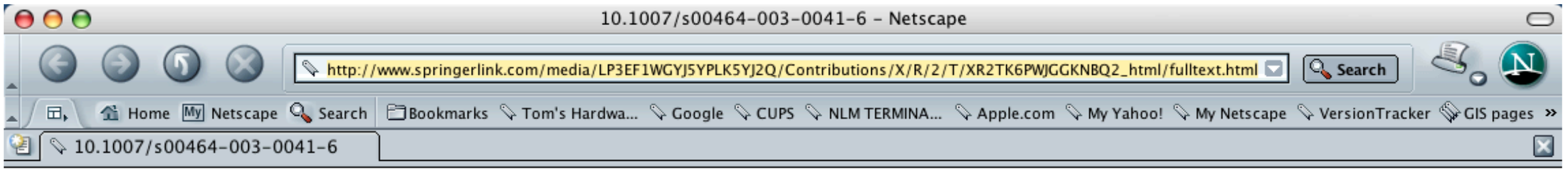
FULL-TEXT ARTICLE
Multimedia article. Laparoscopic infracolic necrosectomy for infected pancreatic necrosis.
Adamson GD, Cuschieri A.
Surgical Skills Unit, Ninewells Hospital and Medical School, University of Dundee, Scotland, United Kingdom.
Infected pancreatic necrosis carries a high morbidity and mortality from sepsis and multisystem organ failure. Following confirmation of the infection by CT-guided fine needle aspiration, treatment consists of broad spectrum antibiotics (imipenim-cilastin) followed by emergency open (laparotomy) digital necrosectomy and insertion of drains for postoperative lavage with hyperosmolar dialysate as advocated by Beger et al. This video shows an alternative laparoscopic technique to open necrosectomy and has been used in Dundee since 1994. After elevation of the transverse colon, the lesser sac is opened through the root of the transverse colon between the middle and left colic vessels. The necrosectomy is accomplished from inside the lesser sac under vision with a combination of pulsed irrigation and graspers. On completion of the necrosectomy, two large drains are inserted into the lesser sac for postoperative irrigation. The experience with this technique has been favorable with a patient survival of 85%.
PMID: 14973724 [PubMed - indexed for MEDLINE]



Surgical Endoscopy

10.1007/s00464-003-0041-6

Multimedia article

Laparoscopic infracolic necrosectomy for infected pancreatic necrosis

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(1) Surgical Skills Unit, Ninewells Hospital and Medical School, University of Dundee, Scotland, United Kingdom

Published online: 29 September 2003

Abstract Infected pancreatic necrosis carries a high morbidity and mortality from sepsis and multisystem organ failure. Following confirmation of the infection by CT-guided fine needle aspiration, treatment consists of broad spectrum antibiotics (imipenim-cilastin) followed by emergency open (laparotomy) digital necrosectomy and insertion of drains for postoperative lavage with hyperosmolar dialysate as advocated by Beger et al. This video shows an alternative laparoscopic technique to open necrosectomy and has been used in Dundee since 1994. After elevation of the transverse colon, the lesser sac is opened through the root of the transverse colon between the middle and left colic vessels. The necrosectomy is accomplished from inside the lesser sac under vision with a combination of pulsed irrigation and graspers. On completion of the necrosectomy, two large drains are inserted into the lesser sac for postoperative irrigation. The experience with this technique has been favorable with a patient survival of 85%.

Keywords Infected pancreatic necrosis - Laparoscopic infracolic necrosectomy - Beger hyperosmolar lavage

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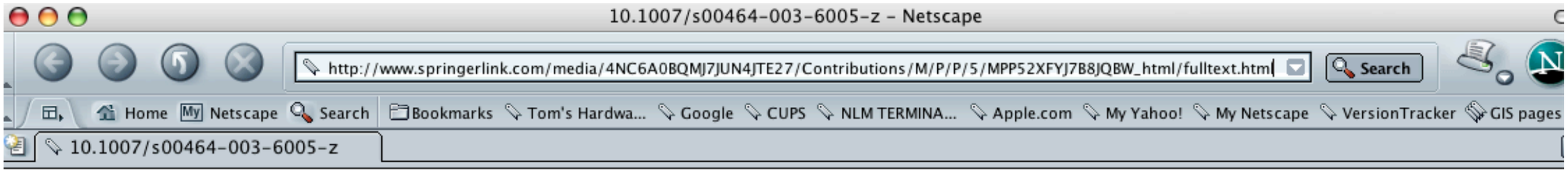
Video contribution (Download)

Video contribution (Streaming Media) Requires RealPlayer Download it Free!



Surgical Endoscopy

10.1007/s00464-003-6005-z

Multimedia article

Laparoscopic Ladd's procedure in two adults: Malrotation and the minimally invasive approach

G. L. Adrales[1], A. Gandsas[1], D. Beales[1], K. Draper[1], I. M. George[1] and A. E. Park[1]

(1) University of Kentucky Center for Minimally Invasive Surgery, 800 Rose Street, Lexington, KY 40536-0298, USA

Published online: 26 November 2003

Abstract Malroation is an intestinal rotation anomaly rarely diagnosed in adults. In the adult patient, obstructing peritoneal bands may lead to nausea and abdominal distention. Familiarity with this presentation as well as the aberrant anatomy associated with the unusual problem facilitates surgical treatment. While the minimally invasive approach requires meticulous dissection due to this abnormal anatomy, laparoscopic treatment does provide the advantages of short convalescence and low morbidity. This video briefly reviews embryologic intestinal development, rotational anomalies and two laparoscopic Ladd's procedures.

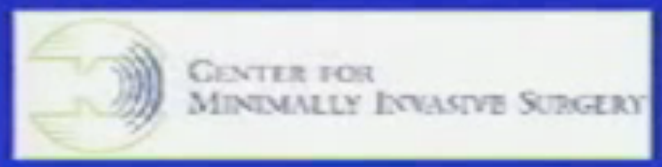
Keywords Malrotation - Ladd - Laparoscopy - Adult

Video contribution (Download)

Video contribution (Streaming Media) Requires RealPlayer Download it Free!

Laparoscopic Ladd's Procedure in Two Adults: Malrotation and the Minimally Invasive Approach

GL Adrales, A Gandsas, D Beales,
K Draper, IM George, and AE Park
University of Kentucky



Presentations by the NLM Team

- Dr. Elliot Siegel - Inter Pub seen by those born digital
- Dr. Michael Ackerman - Inter Pub experiment with commercial publisher
- Dr George Thoma - Tools with which to build Inter Pubs