

selectiva para el manejo clínico de las hemorragias en territorio de la arteria carótida externa.

Material y métodos: Entre mayo de 1998 y abril de 2004, 24 pacientes p (16 masculinos, 8 femeninas, edad promedio: 42 años) con patología sanguínea en nariz, faringe y lengua fueron tratados. Doce presentaron epistaxis sin causa aparente, 2 p eran portadores de fibroangioma nasofaringeo, 7 p oncológicos con tumores sanguíneos y 3 tenían antecedentes de traumatismo facial. Se realizó angiografía digital en todos los casos. Se identificó el sitio de sangrado en 4 p (16%). Se embolizó el vaso responsable en éstos 4 p y en el resto se embolizaron ambas arterias maxilares internas o embolización superseletiva de ambas esfeno-palatinas. Como agentes embolizantes más comunes se utilizaron partículas de PVA o Spongostan. El seguimiento promedio fue de 16 meses.

Resultados: Se logró el control de la hemorragia aguda en todos los casos (100%). No se registraron complicaciones relacionadas con embolización en territorio no drenado. Tres p recibieron otros tratamientos (cirugía, radioterapia). Dos p fueron rehospitalizados al mes.

Conclusión: La embolización selectiva de ramos de la arteria carótida externa es un método seguro y eficaz para el control de las hemorragias en territorio nasal y faríngeo.

ENDOVASCULAR RECANALIZATION OF THE SYMPTOMATIC CAROTID OCCLUSION

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Purpose: Our aim is to present the clinical and radiological evolution of a selected group of patients in which the permeability of the symptomatic occluded internal carotid artery has been recovered through endovascular surgery.

Material and methods: Between May 1999 and December 2003, we enrolled 17 patients, 12 male and 5 female. The age range was within 65 and 80 years of age, with an unstable neurological defect of hemodynamic cause related to the occlusion of the internal carotid artery. The selection criteria were: 1) lack of response to medical treatment, 2) retrograde flow at the siphon and 3) the absence of collateral vessels with abnormal angiography. The revascularization technique was performed through femoral approach. In all of them a microcatheter was used to pass through the proximal thrombus, and urokinase (up to 300.000 UI) or IIb/IIIa blockers was instilled. Afterwards, a cerebral protection device (Perco Surge) was distally placed, and stent-assisted TPA was performed.

Results: Recanalization of the artery was achieved in 16 (9+1%) patients. Nine improved their neurological defect; 3 remained stable; 2 had a hyperperfusion syndrome with ipsilateral hemorrhagic reperfusion, with recovery in one case and death in the other. One patient suffered an embolic complication related to the procedure. The patients were discharged, under rigid protocol with aspirin and clopidogrel. Follow-up with Doppler was performed at discharge, 30 days and 6 months. 8 were controlled with DSA, confirming a stable arterial patency.

Conclusion: Current technique of recanalization procedures on the ICA has not yet found generally accepted standards. Although our early experience is encouraging, longer follow-up is needed. Early post-treatment surveillance in the intensive care unit is mandatory to avoid main complications.

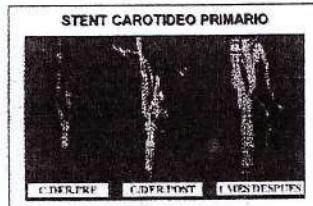
STENT CAROTÍDEO SIN DILATACIÓN PREVIA NI POSTERIOR: UNA NUEVA TÉCNICA

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Objetivo: Presentar nuestros resultados del tratamiento de estenosis de arteria carótida interna extracranial mediante la colocación de stent sin dilatación previa ni posterior.

Método: Es un estudio prospectivo no aleatorizado que consiste en 8+ carótidas de 73 pacientes consecutivos. Se colocó stent tipo Acculink® en todos los casos. No se realizó dilatación previa ni posterior en ningún caso, tampoco se utilizó sistema de protección. Se realizó un seguimiento a los pacientes con eco duplex, doppler transcraniano, radiografías simples del stent y evaluación clínica a las 48 h, al mes y, posteriormente, cada 3 meses.

Resultados: Se logró colocar el stent a todos los pacientes obteniendo una apertura inmediata del mayor al 45%. No se observó reacción vagal, ni complicaciones neurológicas, excepto en 6 pacientes que presentaron ataque isquémico transitorio dentro de las primeras 24 h (1 disartria, 1 afasia, 4 hemiparesias) y se recuperaron sin secuelas. Durante el seguimiento, el eco duplex mostró hiperplasia intimal en 2 p, a los que se trato exitosamente con angioplastia.



Conclusion: Los resultados preliminares indican que la colocación de stent carótido sin dilatación previa ni posterior es una técnica sencilla y evita las complicaciones relacionadas con la dilatación. Las complicaciones neurológicas son más bajas que las de las series publicadas.

ANGIOPLASTIA CAROTÍDEA BILATERAL. EVOLUCIÓN INTRAHOSPITALARIA Y SEGUIMIENTO A MEDIANO PLAZO

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Objetivo: Analizar los resultados intrahospitalarios (IH) y en el seguimiento de los pacientes que fueron tratados con angioplastia carótida transluminal percutánea (ACTP) bilateral en nuestra institución.

Materiales y métodos: Entre abril del 2000 y mayo de 2004 se realizaron 162 ACTP. El 7.4% (12 p) fueron bilaterales. Se definió éxito angiográfico (EA): lesión residual, cirugía de urgencia e infarto agudo de miocardio (IAM).

Resultados: Edad 70.2 (\pm 9.9) años, sexo masculino 75%, tabaquismo 25%, hipertensión 91.6%, diabetes 25%, dislipidemia 91.0%, IAM previo 3.3%, cirugía de revascularización (CRM) previa 16.6%, antecedente de ataque isquémico transitorio (AIT) 25%, antecedente de ataque cerebrovascular (ACV) 8.3%, restenosis posendarterectomía de carótida primitiva izquierda 3.3%. Se realizaron CRM en el mismo día 16.6% y CRM en la misma internación 8.3%. Arteria tratada: carótida interna derecha e izquierda 83.3%, carótida primitiva izquierda y carótida primitiva derecha: 8.3%, carótida interna izquierda y carótida primitiva derecha: 8.3%.

Resultados: Se implantó stent en el 95.7% de las arterias tratadas, se utilizó sistema de protección cerebral en el 91.6% de los p (Percosurge 45.5%, Epi Filter 45.5% y Emboshield 9%). Se obtuvo EA en el 100% y EC en el 91.6%, óbito post CRM no relacionado con la ACTP 8.3%, AIT 8.3% e hipotensión sostenida 33.3%. Días de internación 13.3 \pm 22 (1-70). El seguimiento fue 21.8 \pm 14.4 meses (1-47), óbito por ACV 18.2% (un p con enfermedad cardíaca avanzada y otro con ACV previo a la ACTP y enfermedad coronaria), asintomático 81.8%.

Conclusión: La angioplastia carótida bilateral en esta pequeña serie fue factible, con buenos resultados intra-hospitalarios. La mortalidad a mediano plazo puede ser atribuible a la enfermedad cardiovascular avanzada de esos pacientes.

ANGIOPLASTIA CAROTÍDEA EN OCTOCENARIOS. EVOLUCIÓN INTRAHOSPITALARIA Y SEGUIMIENTO AL AÑO

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Objetivo: Analizar los resultados intrahospitalarios y al año de los pacientes (p) con 80 o más años de edad que fueron tratados con angioplastia carótida transluminal percutánea (ACTP) en nuestra institución.

Materiales y Métodos: Entre noviembre de 1995 y mayo de 2004 se realizaron 305 ACTP. El 8.9% (27 p) correspondieron a este grupo etario. Se definió como éxito angiográfico (EA): lesión residual, cirugía de urgencia e infarto agudo de miocardio (IAM).

Resultados: Edad 82 \pm 1.6 (80-86) años, sexo masculino 77.7%, tabaquismo 39.3%, hipertensión 74%, diabetes 7.4%, dislipidemia 48.1%, infarto agudo de miocardio (IAM) previo 7.4%, CRM previa 3.7%, antecedente de ataque isquémico transitorio (AIT) 18.1%, antecedente de ataque cerebrovascular (ACV) 11.1%. Se realizó cirugía de revascularización (CRM) en el mismo día al 3.7%. Arteria tratada: carótida interna derecha: 40.7%, carótida interna izquierda 40.7%, carótida interna izquierda y carótida interna derecha 7.4%, carótida primitiva izquierda 3.7%, carótida interna derecha y vertebral izquierda 3.7%, carótida interna izquierda y carótida primitiva izquierda 3.7%. Se implantó stent en el 100% de las arterias tratadas: se utilizó sistema de protección cerebral en el 66.6% (Percosurge 33.33%, Epi Filter 55.55%, Angioguard 5.55% y Spider 5.55%). Se obtuvo EA en el 100% y EC en el 96.2%. Óbito post CRM no relacionado con la ACTP 3.7%, TIA 3.7%. Al seguimiento, el 100% de los p se encuentran asintomáticos (21 p, más de 12 meses). 15 p (71%) tienen eco-Doppler al año, todos sin restenosis (100%).

Conclusión: En esta serie, la ACTP mostró un excelente resultado y debe considerarse de elección, dado el mayor riesgo que presentan otras alternativas en este tipo de población.

STENT CAROTÍDEO PARA PACIENTES CON PATOLOGÍA COMBINADA-CAROTÍDEA, CORONARIA Y PERIFÉRICA- RESULTADOS Y SEGUIMIENTO A MEDIANO PLAZO

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Antecedentes: Es un gran desafío establecer cuál es el mejor tratamiento para los pacientes (p) con alto riesgo quirúrgico con patología carótida y simultáneamente coronaria y periférica. En estos pacientes, la cirugía combinada se destaca por una tasa de morbilidad alta. El increíble avance técnico de los procedimientos endovasculares convirtió, en los últimos años, al stenting de la arteria carótida (SAC) en una razonable alternativa de la trombectomía carótida (TEC). Presentamos los resultados de stenting carótido como parte del tratamiento combinado endovascular y endovascular-quirúrgico de p con patología vascular combinada.

Objetivo: Mostrar la factibilidad y seguridad del SAC como parte de la estrategia de revascularización global para la prevención de stroke, infarto de miocardio (IM) y muerte en el periodo perioperatorio de 30 días, y evaluar su eficacia a mediano plazo en cuanto a la prevención del stroke ipsilateral a la arteria carótida tratada.

Material y métodos: Entre enero del 2000 y enero del 2003 en 52 p consecutivos tratamos con SAC 53 estenosis >70% en arteria carótida y simultáneamente - 42 lesiones coronarias y 18 periféricas. Todos los p fueron evaluados con alto riesgo quirúrgico. Veintiocho p (53.8%) fueron sintomáticos (ACV o AIT previo); 49 p (94.2%) de sexo masculino; la media de edad fue de 64.3 \pm 12.7 años. Entre los p coronarios (35; n = 42; 83.4%) se presentaron en clase funcional alta (III y IV) y 7 (16.6%) en CF II (clasificación CCS). De las carótidas tratadas con stent, 53 fueron internas, 1 externa, 3 comunes y una

performed through the minilaparotomy in traditional fashion. **Methods.** A total of 22 patients aged between 61 and 85 years (mean 73) underwent hand-assisted laparoscopically abdominal aortic aneurysm (AAA) repair. The AAA diameter was 6.2 cm (range 4.6-8.2). Mean overall surgical and aortic cross-clamping time was respectively 182 min (range 154-218) and 44 min (range 32-76). Mean blood loss was 536 cc (range 345-1 220), mean stay in intensive care 1.7 day (range 1-13) and mean postoperative hospital stay 6.5 days (range 6-19). **Results.** There was no death. Conversion to open surgery was necessary for blood loss in 1 case. One colic ischemia required a bowel resection. After a mean follow-up of 26 months (range 1-38), the primary and secondary patency rates were respectively 95.45% and 100%. **Conclusion.** Hand-assisted laparoscopic AAA repair is a minimally invasive technique which proves sure and reliable. The results in short and mead terms are similar as conventional surgery with a significant reduction of stay in intensive care and hospital.

Mid-term outcome after carotid artery stenting in poor surgical candidates with concomitant carotid, coronary and peripheral pathology

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Aim. The optimal treatment of poor surgical candidates with severe carotid stenosis and concomitant coronary and peripheral artery disease is uncertain. Carotid artery stenting (CAS) became a reasonable alternative of the carotid endarterectomy (CEA) in recent years. The purpose of this study is to report the efficacy of CAS in such patients in preventing stroke, myocardial infarction and death for the 30-day periprocedural period and stroke ipsilateral to the treated carotid artery during 1-year follow-up period. **Methods.** From June 2001 to June 2003, we treated in 52 consecutive patients 58 carotid stenoses >70% and simultaneously 42 severe coronary and 18 peripheral artery lesions. The mean age of the patients was 64.3 ± 2.7 years, 28 (53.8%) were symptomatic, 49 (94.2%) men. CAS was performed in 53 internal, 1 external, 3 common carotid and 1 vertebral artery. In 6 cases we performed bilateral CAS and intracoronary stenting (ICS), in 38 unilateral CAS and ICS (in 13 of them peripheral stenting apart), in 2- CAS and CABG, in 1- vertebral stenting, CABG and aortic VR, in 5- CAS and peripheral surgical or endovascular procedure. **Results.** Carotid stenting was successful in all lesions. The average CA stenosis was 77.2% preprocedure and 9.4% postprocedure. One fatal cardiogenic shock (1.9%) and 1 minor stroke occurred during the procedure; 2 (3.8%) non-Q MI within 30 days. No ipsilateral TIA, strokes or death occurred during the mean follow-up period of 13 ± 4 (8 to 19) months. At follow-up 1 patient (2%) with carotid lesion treated with balloon expandable stent showed asymptomatic restenosis, treated successfully with re-PTA.

Conclusion. The results support the feasibility and durability of CAS in the population studied. These data suggest a beneficial effect of CAS for patients with high-grade symptomatic carotid and concomitant coronary and peripheral stenoses who are not good surgical candidates. CAS should be considered treatment of choice for the management of these high-risk patients.

New indications for CAS by using proximal protection device

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Aim. To assess the role of proximal protection devices in the treatment of pseudo-occlusion of the internal carotid artery and

intracranial lesions. These are indications both not universally accepted for endovascular approach and not suitable for anatomic reasons for filter positioning. **Methods.** In the period August 2003-March 2004, we used the proximal protection device Mo.Ma (Intratec, Italy) in 6 patients, 4 male and 2 female, all symptomatic. Mean age was 61.7 years. Three patients with intracranial stenosis in the petrosal segment (1/3 patients had an omolateral tandem lesion in carotid bifurcation), 2 patients with Horst type I ICA pseudo-occlusion (subtotal stenosis with antegrade flow in internal carotid artery) and 1 patient with acute postdissective occlusion of the left ICA. The mean length of the lesion was 9.3 mm and the mean diameter of the target vessels was 4.6 mm. A critical contralateral stenosis was found in 2/6 patients (1 treated in the same session). The inflation of proximal balloon was the first step in pseudo-occlusion cases. Coronary and nitinol stents were used respectively for intracranial and bulbular stenosis. Cerebral monitoring was obtained by clinical observation and TCD or NIRS. **Results.** Correct positioning of the Mo.Ma system was achieved in all patients. The occlusion time ranged between 4 and 14 minutes. Endovascular clamping was tolerated in 5/6 patients (in 1 patient with contralateral stenosis the balloon has to be rapidly deflated after the procedure). In all except 1 patient technical and clinical success was achieved. In the occluded ICA we were not able to recanalize the lesion. Macroscopic visible debris was found in the filter in all patients. During and after the procedure any patient suffered from TIA or stroke. **Conclusion.** Pseudoocclusion and intracranial carotid lesions could be safely treated by endovascular clamping in CAS.

The French registry on renal stenting

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Aim. There has been dramatic progress in percutaneous renal intervention over the past few months in parallel with the enhancement of the equipment currently available (0.014" guide-wires, 6-Fr compatible low-profile stents), stent size selection by QCA and the practice of systematic stenting. A French multi-center registry was set up in order to assess the outcome of this new strategy and to determine its efficacy in the reduction of adverse events as compared with earlier series. **Methods.** From September 2001 to August 2002, 116 patients (130 lesions) were treated in 12 centers. Mean age was 69.7 ± 10.7 yrs, 60.3% were male. All patients had hypertension and 25.4% presented with renal failure. Ninety-three point eight percent of lesions were ostial or para-ostial. Vessel reference diameter was 61 ± 14 mm and percent stenosis was $72.4 \pm 14.1\%$. **Results.** Direct stenting was performed in 65.4% of cases. Mean stent length was 14 ± 3 mm and stent diameter was 5.8 ± 0.6 . Seventy-three point three percent of stents used were Herculink (Guidant). Mean deployment pressure was 15.12 ± 2.8 atm. Procedural success was achieved in 112 (97%) patients and 122 (94%) lesions. Arterial closure devices were used in 43 (37.1%) patients. The only complications observed were partial renal infarctions in 2 patients (1.5%) and 2 occurrences (1.7%) of access site complication. No stenting failure or dissection was reported. Mean creatinine was 128.8 ± 48.6 mmol/l pre-implantation and 121.3 ± 47.8 mmol/l post-implantation (NS). Fourteen patients had double renal stenting in the same procedure; procedural success was 100%. No renal failure was observed. In the 32 patients who reached their 6-month follow-up, mean systolic and diastolic pressures were significantly lower than before treatment: 126.39 ± 45.6 vs 163.1 ± 25.5 and 67.7 ± 24.7 vs 87.3 ± 13.7 respectively, $p < 0.0001$. Mean creatinine was also significantly reduced: 105 ± 44 vs 128.8 ± 48.6 , $p < 0.03$. **Conclusion.** This new approach to the treatment of renal artery stenosis is safe and effective. Double renal stenting can be performed safely in a single procedure. The mid-term outcome is favorable both for hypertension and renal function.

One stage endovascular treatment of the celiac trunk, renal arteries and iliac artery

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Background. Although not very often diagnosed, the acute and chronic mesenteric ischemia is advancing and life threatening condition. When associated with multiple vascular pathology compromising the perfusion and causing multiple organ failure the choice of treatment is a challenge. In such cases the radical combined surgical treatment is associated with high morbidity and mortality. In recent years endovascular methods of treatment are gaining popularity in the treatment of these patients. Case report. We report a case of chronic mesenteric ischemia that caused abdominal angina and weight loss in a 63-year-old man with renovascular hypertension, renal insufficiency and occlusive peripheral arterial disease. Angiographic study revealed multivascular pathology including total occlusion of the superior mesenteric artery, 90% stenosis of the celiac trunk, bilateral high grade renal stenoses and obstructive pathology of both iliac arteries. One stage successful endovascular treatment was performed in the 3 vascular territories. In the celiac trunk, left renal artery and right common iliac artery were implanted stents. A double right renal artery was treated successfully by the kissing balloon technique. A clinical follow-up demonstrated no recurrence of abdominal pain, body weight gain, better control of the hypertension and improvement of the renal function. The ultrasound follow-up demonstrated no restenosis in either of the treated territories. This is first reported case of one stage endovascular treatment of the celiac trunk, both renal arteries and iliac artery. This case report illustrates the value of endovascular treatment in a patient with atherosclerotic narrowing in multiple vascular territories.

Cadence contrast pulse sequencing and sonovue for aortic stent-graft surveillance

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Aim. The increasing knowledge on the natural history of patients with abdominal aortic aneurysms treated by endovascular repair requires the need for regular long-term surveillance. Hence the need to validate new techniques as alternatives to spiral computed tomographic (CT) angiography, the currently accepted reference standard. Despite its notable advantages, ultrasonography (US) has not yet achieved reference standard status. Even though the first-generation signal enhancers have considerably improved the reliability of standard US they have failed to achieve satisfactory diagnostic sensitivity and specificity. We assessed the reliability of a US procedure using the Cadence Contrast Pulse Sequencing (CPS) technique with second-generation signal enhancer (SonoVue) in aortic stent-graft surveillance. **Methods.** Seven patients with endovascular grafts and previously documented endoleaks, underwent CT angiography and second-generation signal-enhanced echo color-Doppler. Changes analyzed were changes in the maximum diameter of the aneurysmal sac, presence and type of an endoleak. **Results.** Diagnostic techniques visualized graft patency and proper graft placement in all patients. Measurements of aneurysmal diameters usually overlapped ($r: 0.98 p < 0.05$). In 2 of the seven patients, CPS correctly visualized a sealed endoleak with aneurysmal shrinkage. In 4 patients US and CT detected the endoleak and identified its type. In 1 patient CT did not detect an endoleak, whereas US disclosed an increased aneurysmal diameter, whereas US disclosed a Type II endoleak. (US therefore yielded 100% sensitivity, 66% specificity, 80% PPV, 100% NPV). **Conclusion.** Despite our little experience we think that a second-generation signal enhancer combined with CPS overcomes the limitations of earlier US techniques,

substantially improving diagnostic reliability. Validated by a larger series it therefore promised to offer an important tool for aortic stent-graft surveillance.

Endovascular treatment of thoracic aorta aneurysm

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Background. Since 1994, when Dake first reported endovascular repair of a descending thoracic aorta aneurysm (DTAA), many others have employed this technique; its most common application is high risk patients. Case report. We present a 70-year-old male patient with a 6.5 cm DTAA, submitted to endovascular repair because of a severe broncopneumopathy. This patient underwent general endotracheal anesthesia; 2 overlapping 36 mm. Talent straight grafts were placed, inserted through a double retroperitoneal iliac arteries access. Endotracheal tube was removed immediately after the procedure and the patient was dismissed after 3 days without any complication. Endovascular DTAA repair seems a promising option for treating these patients although a late follow-up is still missing. It compares favourably to open repair either in terms of mortality (under 10%) or major morbidity (paraplegia 0-5%), especially if we consider that it is usually employed in high risk patients. Still to be defined are some technical details like the coverage of left subclavian artery ostium (when necessary), that is anyway well tolerated (only about 25% of patients require upper limb revascularization), and specific procedural complications. Among these retrograde aortic arch dissection, cerebral embolism and endoleaks seem to be the most important. Endoleaks are reported up to 29% of cases, but most of these can be dealt with a conservative approach as they tend to seal in a few months; only type I endoleaks require surgical conversion. At the present time endovascular DTAA repair seems to be indicated for high risk patients or for those showing an aneurysm with an adapt morphology for endograft positioning.

Endovascular graft infection: diagnosis, treatment and results

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Aim. Infected endoluminal grafts (IEG) are an emerging problem. We collect and analyze the largest possible number of aortoiliac IEG thus to obtain some data on their frequency. **Methods.** We sent to 42 International Centers of Vascular Surgery a questionnaire designed to elicit the following information: number and type of graft used, IEG recorded, implantation site, setting for the procedure, onset of symptoms, risk factors, patients presenting symptoms, time of the diagnosis, diagnostic techniques, microbiologic tests, therapeutic approach and outcome. At the same time we reviewed also literature concerning aortoiliac IEG. We used SPSS 8.00 for Windows program for the statistical analysis. **Results.** We collected 69 IEG (mean frequency rate 0.42%). In 24 cases IEG (38.7%) presented early, in 38 (61.3%) late; in 7 cases no information was available. In 54 patients (78%) we identified some IEG risk factors. The mean interval elapsing between the symptoms of infection and diagnosis was 42 days. 22 patients (31.8%) presented asymptomatic IEG symptoms, while 47 patients (68.2%) presented specific IEG symptoms. Most of the IEG were caused by *Staphylococcus aureus* (55.6%). CT scan was the more used diagnostic test. Fifty-six IEG (81.2%) were treated surgically; 11 patients (15.9%) received conservative therapy. No data were available about 2 patients (2.9%). Overall mortality was 28.9%. Perioperative mortality was 16.3%. Conservative treatment mortality was 36.4%. The mean total

Original Article

Simultaneous surgical and endovascular treatment of patients with concomitant coronary and peripheral vascular disease. Basis of the global revascularization concept.

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Background

The atherosclerosis is a systemic disease that involves coronary, carotid and peripheral arteries. That is why in many patients we find atherosclerotic pathology in more than one vessel territory. The incidence of carotid and peripheral stenoses among patients candidates for coronary revascularization is relatively high.

And vice versa the incidence of significant coronary stenosis among patients-candidates for carotid repair is also high- between 22-43%. (Lopes DK et al. *J Neurosurg* 2002 Mar; 96(3):490-6; Chimowitz MI et al. *Stroke* 1992 Mar; 23(3):433-6; BB Love et al. *Stroke*, Vol 23, 939-945; Kallikazaros I et al. *Stroke*. 1999; 30:1002-1007)

Patients with concomitant carotid and coronary artery disease are at high risk of both cardiac and

cerebrovascular complications when they undergo surgical revascularization procedures.

The rate of major complications is: Stroke - 0.2-8.6%; AMI - 0.4-7.1%; Mortality- 1.7-6.3%. (Das SK et al. *Int J Cardiol* 2000 Jun 12; 74(1):47-65; Youssouf AM et al. *Ann Thorac Surg* 2001 Nov; 72(5):1542-5; Schepens MA et al. *Current Opinion in Cardiol* 1996, 11:525-532; Schwartz RL et al.. *Circulation* 1982 Aug; 66(2 Pt 2):I97-101; Hertzer NR et al. *Ann Surg* 1981 Aug; 194(2):212-8.)

The best management strategies for patients with concomitant disease have not been determined for certain. Staged surgical procedures with either coronary artery bypass grafting prior to carotid endarterectomy or vice versa as shown is associated with an increased risk of ischemic complications compared to separate procedures. Until recently, there were no convincing data favoring a simultaneous or combined revascularization approach. Carotid artery stenting has emerged as a treatment option in patients with cerebrovascular disease, even in the presence of a high cardiac risk. Recent results in patients with severe concomitant coronary artery disease are encouraging. This report focuses on the treatment of severe carotid artery stenosis by stent implantation in patients with life-threatening comorbidity to emphasize the possibility of this endovascular approach as an alternative treatment option. The question to achieve optimal treatment for these high-risk patients with concomitant coronary, carotid and peripheral artery disease remains controversial.

Concomitant Carotid stenosis	Concomitant Peripheral stenosis
12 - 25%	30 - 64%

Figure 1 Incidence of carotid and peripheral stenoses among patients- candidates for coronary revascularization. Dormandy J et al. *Semin Vasc Surg* 1999 Jun;12(2):118-22; Racco F et al. *Ital Cardiol* 1999 Jan;29(1):54-8; Barnes RW et. *Surgery* 1981 Dec;90(6):1075-83)

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Background: Young patients with acute myocardial infarction have an excellent prognosis after primary percutaneous transluminal coronary angioplasty (PTCA). Advances in percutaneous coronary intervention, including stents and glycoprotein (GP) IIb/IIIa inhibitors, may have less impact in this relatively low risk subset of patients.

Methods: In the Controlled Abciximab and Device Investigation to Lower Late Angioplasty Complications (CADILLAC) study, 2,082 patients were randomized to stenting or PTCA, each with or without abciximab; 509 patients were <50 years old.

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	PTCA Alone	PTCA and Abciximab	Stent Alone	Stent and Abciximab	p- Value
N	134	117	127	131	
Death (%)	2.4	1.7	0	2.4	0.419
Ischemic TVR (%)	20.1	15.0	17.1	7.9	0.043
MACE (%)	23	17.4	17.1	11	0.077

TVR = target vessel revascularization.

Conclusions: Late survival in the young patient is excellent, and is not improved by stents or GP IIb/IIIa inhibitors. However, overall event-free survival in the young patient tends to be improved by both stenting and abciximab through further reductions in ischemic TVR.

TCT-333

Anemia Worsens Prognosis After Primary Angioplasty in Acute Myocardial Infarction: Analysis from the Cadillac Study.
E. Nikolsky¹, E. Aymong¹, A.J. Lansky¹, G.W. Stone¹, M. Turco², D.A. Cox³, J.E. Tcheng⁴, T. Stuckey⁵, J.D. Carroll⁶, J.J. Griffin⁷, C.L. Grines⁸. ¹The Cardiovascular Research Foundation, New York, New York, USA; ²Washington Adventist Hospital, Tacoma Park, Maryland, USA; ³Mid Carolina Cardiology, Charlotte, North Carolina, USA; ⁴Duke Clinical Research Institute, Durham, North Carolina, USA; ⁵Moses Cone Memorial Hospital, Greensboro, North Carolina, USA; ⁶University of Colorado, Denver, Colorado, USA; ⁷Virginia Beach General Hospital, Virginia Beach, Virginia, USA; ⁸William Beaumont Hospital, Royal Oak, Michigan, USA.

Background: Although anemia is a well-recognized factor exacerbating myocardial ischemia, no data exist regarding the prognostic importance of anemia in the setting of acute myocardial infarction (AMI) treated with percutaneous coronary intervention (PCI). We therefore sought to evaluate the impact of anemia on 1-year mortality of patients with AMI treated with PCI.

Methods: This report is based on 2,027 patients drawn from the Controlled Abciximab and Device Investigation to Lower Late Angioplasty Complications (CADILLAC) study. Anemia, as determined by World Health Organization criteria (hematocrit value at entry <39% for men and <36% for women), was present in 260 (12.8%) patients.

Results: Patients with anemia were older, more frequently were women, and had a higher prevalence of diabetes mellitus, hypertension, and Killip class $\geq II$. The rates of 1-year mortality were 2.7 times higher in patients with than without anemia (9.4% vs 3.5%, respectively; $p < 0.0001$). No significant differences were present between the groups in the 1-year rates of reinfarction (2.9% vs 2.3%) or target vessel revascularization (10.8% vs 13.7%). At discharge and at 1-year follow-up, patients with anemia were less likely to be treated with aspirin, β -blockers, and statins (Table). By multivariate analysis, lower hematocrit or hemoglobin levels were identified as independent predictors of 1-year mortality. The risk of mortality increased by 5% for each decrease by 1% in hematocrit (hazard ratio [HR], 0.95; $p = 0.04$), and by 17% for each decline of 1 g/dL in hemoglobin (HR, 0.83; $p = 0.018$). However, after controlling for discharge medication use, mortality at 1-year follow-up was no longer predicted by lower hematocrit or hemoglobin, but rather by the use of aspirin (HR, 0.22; $p = 0.006$).

Medication	Patients		p-Value
	With Anemia (n = 260)	Without Anemia (n = 1,767)	
At discharge (%)			
Aspirin	91.2	96.0	0.0012
β -blocker	67.7	79.2	<0.0001
Statins	20.8	30.5	0.0013
At 1-yr follow-up (%)			
Aspirin	81.2	87.5	0.0061
β -blocker	62.3	72.6	0.0009
Statins	39.2	48.7	0.0042

Conclusions: Anemia is a common clinical condition and is associated with adverse 1-year outcomes in patients with AMI treated with primary angioplasty. Anemic patients are less likely to be treated with medications ascertained to improve survival after AMI.

TCT-334

Stenting of Left Main Coronary Artery Stenoses: Immediate and Mid-Term Outcomes. *J. Jorgova, I. Petrov, A. Tschirkov. St. Ekaterina University Hospital, Cardiology Clinic, Sofia, Bulgaria.*

Background: Left main coronary artery (LMCA) disease was regarded for a long time as an absolute contraindication for coronary angioplasty (CABG). Recently, with routine stenting, several authors reported promising results after protected or unprotected LMCA percutaneous coronary intervention. Our purpose is to report the immediate and mid-term outcomes after stenting of LMCA stenoses.

Methods: From January 2001 to December 2002, 12 consecutive patients (9 men; mean age, 51 ± 5 years) with LMCA stenoses and left ventricular ejection fraction (LVEF > 0.30) were treated with stents. Three patients (25%) were protected with patent left internal mammary artery graft to the left anterior descending artery and 9 (75%) were unprotected. Eight of the patients (66%) were in high (III-IV) Canadian Cardiology Society class stable angina, 3 (25%) had unstable angina, and 1 (8.3%) was treated in the course of acute anterior myocardial infarction (MI). The mean LVEF was 0.475. In 9 (75%) patients, the procedure was elective and in 3 (25%) it was urgent (including 1 patient in cardiogenic shock). Three patients (25%) received abciximab and 1 (8.3%) received intra-aortic balloon pump support. Two (16.6%)

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TCT-334

Stenting of Left Main Coronary Artery Stenoses: Immediate and Mid-Term Outcomes. J. Jorgova, I. Petrov, A. Tschirkov, St. Ekaterina University Hospital, Cardiology Clinic, Sofia, Bulgaria.

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TÍTULO

RESULTADOS ANGIOGRÁFICOS INMEDIATOS Y EVOLUCIÓN CLÍNICA TARDÍA EN PACIENTES ADULTOS JÓVENES POST IMPLANTE DE STENT

AUTORES

PEROZO CESAR, Albertal M, Muñoz JS, Tebet M, Graebin R, Kreimer S, Castro R, Feres F, Abizaid A, Staico R, Mattos L, Molina J, Sousa AGMR, Sousa JE

La enfermedad arterial coronaria (EAC) se presenta con mayor frecuencia en grupos de edad avanzada, pero recientemente estudios demuestran un aumento en la incidencia de EAC en adultos jóvenes.

OBJETIVO

Evaluar los resultados angiográficos y evolución clínica inmediata y tardía de pacientes con edad menor de 40 años sometidos a intervención coronaria percutánea (ICP) con implante de stent.

MATERIAL Y METODOS

En el periodo comprendido entre 03/98 y 12/01 fueron realizados 90 casos consecutivos de ICP con implante de stent en pacientes adultos jóvenes (edad media de 34 ± 5.2 años, sexo masculino 73%) siendo analizado los factores predisponentes, historia clínica, resultado inmediato (clínico y angiográfico) y sobrevida libre de eventos (mortalidad, infarto agudo del miocardio (IAM) y revascularización de la lesión culpada (RLC)). El seguimiento clínico varió entre 3 y 32 meses.

RESULTADOS

Durante la admisión 24% presentaron diagnóstico de angina estable, 22% angina inestable y 50% con IAM reciente (< 1 mes). Historia familiar de EAC estuvo presente en 59%, hipertensión arterial 38%, tabaquismo 73%, hipercolesterolemia 49% y Diabéticos 14%. 87 pacientes eran uniarteriales y la fracción de eyeción media fue de $0.57 \pm 4.3\%$. La arteria descendente anterior fue tratada en 49%, arteria circunfleja 19% y coronaria derecha 32%. El éxito primario se obtuvo en 98,8% ocurriendo un caso de fracaso (sin complicación). En relación al seguimiento clínico tardío se observó que en 78 pacientes (87%) permanecieron libre de síntomas, la tasa de mortalidad fue de 1,1% y hubo un caso de IAM. La tasa de RLC fue de 6,6%.

CONCLUSIÓN

La angioplastia coronaria percutánea con stent constituye un procedimiento de revascularización eficaz en pacientes adultos jóvenes con un alto porcentaje de éxito, con baja morbi-mortalidad. Así mismo, se demostró que existe una alta incidencia de enfermedad uniarterial en la mayoría de esta población haciendo de esta técnica (ICP mas stent) la más indicada debido a la obtención de una revascularización completa.

TÍTULO

EL TRATAMIENTO ENDOVASCULAR DE PACIENTES CON PATOLOGÍA COMBINADA- CORONARIA, CAROTIDEA Y PERIFÉRICA- BASE DE LA ESTRATEGIA DE REVASCULARIZACIÓN GLOBAL

AUTORES

PETROV IVO, Jorgova J, Iovev Sv, Grozdinski L, Zahariev T, Chirkov Al University Hospital "St Ekaterina", Clinic of Cardiology, Sofia, Bulgaria

El tratamiento de pacientes(pte) con patología combinada coronaria, carotidea y periférica es un gran desafío por la tasa alta de morbi-mortalidad del tratamiento quirúrgico convencional. El increíble avance técnico en los últimos años convierte el tratamiento endovascular en una excelente alternativa.

OBJETIVO

Mostrar la factibilidad, eficacia y seguridad del tratamiento combinado endovascular y endovascular-quirúrgico de ptes con patología vascular combinada como base de la estrategia de revascularización global.

MATERIAL Y METODO

Entre enero y diciembre del 2001 tratamos con ATC 421 ptes, de los cuales 47(11%) fueron sometidos simultáneamente a procedimiento de revascularización en otro territorio. En los 47 ptes se efectuó ATC de 52 vasos coronarios y 51 procedimientos extracoronarios-41 endovasculares(10 ATP de A.carotida, 2 de A. vertebral, 2 de A. subclavia, 23 de miembros inferiores, 4 de A. renal) y 10 quirúrgicos. En 50(96.15%) de las ATC y en 37(90.2%)de las ATP se implantó stent. La edad media fue 675.9, 41(87%) hombres, 33(70%) diabéticos, 27(57%) fumadores, 32(68%) hipertensos, 33(70%) dislipémicos.

RESULTADOS

Exito primario 97.9%. Complicaciones mayores 6.3%(2 óbitos y una cirugía de emergencia), mortalidad 4.2%, IAM-0%, stroke mayor-0%. El seguimiento (8.32.3meses) de 45ptes mostró-muerte 0%, IAM-0%, stroke mayor-0%, stroke menor 2.3%. Restenosis 4.3%(1 coronaria y 2 post ATP- tratadas con re-angioplastia y una reoclusión de A.subclavia que evolucionó favorablemente con tto médico).

CONCLUSIONES

La estrategia de revascularización global basada sobre todo a los avances del tratamiento endovascular es un concepto práctico aplicable con baja tasa de complicaciones y alta tasa de éxito primario. La evolución a mediano plazo es favorable. La colaboración entre los especialistas del equipo multidisciplinario es condición indispensable para la realización n práctica y el éxito del método.

TÍTULO

TRATAMENTO PERCUTÂNEO EM OCTAGENÁRIOS, MULTIARTERIAIS E COM ANGINA INSTÂVEL: IMPACTO DA TÉCNICA ATUAL.

AUTORES

WILSON PIMENTEL, Roberto Abdalla, Luiz Kohn, Emerson Seixas, Maribel Viruez, Glória Perez, Bernardo Amorim, Stoessel Assis, Jorge Buchler, Egas Armelini.

OBJETIVO

Aviar a Intervenção Percutânea (IP) em pacientes (p) com alto risco clínico em se tratando de muito idosos (> 80 anos), multiarteriais (MA) e com Angina Instável (AI).

MATERIAL E MÉTODO

Foram avaliados todos os casos de IP realizadas em p com mais de 80 anos, MA e com AI em dois períodos: 1990-1994= grupo (G) 1-53 p e 1997-2001= G2- 82 p. As características clínicas eram similares entre os grupos. Fatores anátomicos diferiram: Tipo de lesão (ACC/AHA-modificado) B2/C- 33% no G1 vs 55% no G2 (< 0.05); Triarteriais- 42% no G1 vs 62% no G2 (< 0.05); Fração de ejeção < 40%- 27% no G1 vs 49% no G2 (< 0.05).

Resultados

	G1	G2	Valor p
IMEDIATOS			
Sucesso técnico	93%	98%	NS
Tempo médio Diagnóstico/ATP	3 dias	1 dia	< 0.05
Uso de Ticlopidina/clopidogrel	-	100%	< 0.001
Uso de Stents	-	97%	< 0.001
Uso de Inibidor GP IIb/IIIa	-	47%	< 0.001
Número de vasos abordados	1,5	2,7	< 0.05
Complicações Agudas			
VASCULARES			
Oclusão	7%	0,3%	< 0.05
Infarto	9%	0,3%	< 0.05
Cirurgia	1,5%	-	NS
Obito	5%	1,2%	< 0.05
CK-MB> 2,5x	15	6	p<0.05

CONCLUSÃO

A melhoria na conduta clínica e tecnológica da IP em p de alto risco clínico têm relação direta nos resultados mais favoráveis no G2 a despeito de apresentarem características anatômicas e função ventricular mais desfavoráveis.

TÍTULO

TÉCNICA TRANSRADIAL: IMPORTÂNCIA DA CURVA DE APRENDIZADO PARA SUA QUALIFICAÇÃO

AUTORES

LUIZ FERNANDO PINHEIRO, Wilson Pimentel, Milton Macedo Soares, Maéve de barros Correa, Edson Bocchi, Roberto Abdalla, Carlos Fonzar Lopes, Fernando Platania, Luiz Alberto Dallan.

INTRODUÇÃO:

A canulação da artéria radial tornou-se uma técnica alternativa de grande interesse em casos selecionados, aumentando o conforto, a segurança e a eficácia dos procedimentos

OBJETIVO

O objetivo deste estudo foi avaliar comparativamente os resultados da técnica no inicio e no final da curva de aprendizado (CA).

MATERIAL E MÉTODO

No período entre junho de 1999 à março de 2002 foram analisados 400 pacientes (P) consecutivos, submetidos à técnica transradial (TTR). Os P foram divididos em dois grupos (G): G1- 200P (inicio da CA) e GII- 200P (final da CA). A idade variou de 36 a 88 anos.

RESULTADOS

Os seguintes aspectos técnicos foram observados: a) dificuldade da punção (G1- 20%, GII- 11%, p<0,05); b) dificuldade da cateterização (G1- 18,5%, GII- 8,5%, p<0,05); c) mudança da via de acesso (G1- 20%, GII- 11%, p<0,05); d) tempo de procedimento diagnóstico (G1- 50 minutos; GII- 30 minutos, p<0,05); e) angioplastia com stent (G1- 29%; GII- 43%, p<0,05); f) complicações- 0%; g) perda de pulso assintomático em dois P, um em cada grupo.

CONCLUSÃO

A partir da experiência adquirida a TTR mostrou-se um método seguro, de fácil realização, com baixos índices de complicações e menores custos, constituindo-se numa alternativa eficaz à técnica femoral.

Autotransplantation after surgical reduction of the left atrium, mitral and tricuspid valve reconstruction in patient with end stage heart failure (L10.36)
Mitrev Z, Angjuseva T, Risteski P, Josevska S, Hristov N, Vasileva A, Macedonia

- 15:35 International trends and challenges facing the medical profession
Veliotes G, Greece

◆ Discussion

16:00 to 17:00

Satelit symposium Lek

INTERVENTIONAL CARDIOLOGY Part II

Thursday, 27/6/2002

Time: 17:00 to 19:00

Chairman: Kedev S, Kotevski V, Antov S, Petrovski B

17:00 Директно стентирање (Л1.10)

Петровски Б, Кедев С, Котевски В, Антов С, Христовски Ж, Бушљетик О, Костов Ј, Зимбаков Ж, Калпак О, Македонија

Direct stenting (L1.10)

Petrovski B, Kedev S, Kotevski V, Antov S, Hristovski Z, Busletic O, Kostov J, Zimbakov Z, Kalpak O, Macedonia

17:10 Percutaneous transluminal angioplasty of peripheral arteries-feasible and necessary procedure for the invasive cardiologist (literature and technical overview) (L1.11)

Petrov I, Jorgova J, Dimitrov N, Trendafilova D, Jeleva I, Zahariev T, Tschirkov A, Bulgaria

17:20 Percutaneous transluminal angioplasty in the prevention and treatment of coronary-subclavian steal syndrome (L1.12)

Sagic D, Miric M, Mangovski Lj, Tinjic Z, Babic R, Milosavljevic B, Angelkov L, Yugoslavia

17:30 Fluvastatin treatment impact on coronary artery anatomy and flow in patients with CAD (L1.13)

Manukov I, Tonev G, Tcvetkovski C, Galabov Z, Bukov K, Bulgaria

17:40 Direct intracoronary stent implantation (L1.14)

Stajnic M, Yugoslavia

17:50 PTCA in acute coronary syndrome

Dimitrov N, Bulgaria

18:00 Effects of percutaneous transluminal angioplasty on the skin microcirculation in feet of patients with peripheral arterial occlusive disease (L1.15)

Bongard O, Didier D, Bounameaux H, Switzerland

OPTIMIZACION DEL INTERVALO AV AL MES DEL IMPLANTE DE UN DISPOSITIVO DE RESINCRONIZACION BIVENTRICULAR

Tonelli A, Valero E, Perrone S, Favaloro M, Gonzalez J, Galizio N, Perrone S.

Fundación Favaloro. Buenos Aires. Argentina.

Objetivo: Valorar en forma prospectiva la utilidad de una nueva optimización del intervalo AV al mes del implante de un dispositivo de resincronización biventricular en pacientes (ptes) portadores de miocardiopatía dilatada.

Material y Métodos: Se incluyeron 8 ptes de sexo masculino, edad 57 ± 14 años, portadores de miocardiopatía dilatada con una fracción de eyón de $15 \pm 4\%$, CF II/II, ritmo sinusal y bloqueo completo de rama izquierda, refractarios al tratamiento médico. Se les implantó a 6 ptes un dispositivo de resincronización biventricular con electrodo transvenoso a través del seno coronario. En los 2 ptes restantes un desfibrilador con un conector en Y al que se le agregó un electrodo epicárdico. Al día siguiente del implante y al mes se les realizó un ecocardiograma doppler, valorándose el intervalo AV óptimo en cada caso.

Resultados:

El intervalo AV optimizado post implante fue de 101.3 ± 15.5 ms, mientras que al mes del mismo fue de 98.57 ± 14.6 ms; no observándose diferencias estadísticamente significativas.

Un paciente falleció en forma súbita dentro del primer mes del implante. **Conclusiones:**

Los datos obtenidos en este estudio, muestran que no hay diferencias en el intervalo AV al implante y al mes de seguimiento. Un mayor número de pacientes es necesario para valorar la utilidad de su realización.

DISPERSIÓN DE LAS VARIABLES DE LA REPOLARIZACIÓN VENTRICULAR EN PACIENTES CON SÍNDROME DE QT PROLONGADO CONGÉNITO

Favaloro M, Boscatto V, Tonelli A, Keegan R, Valero E, González J, Galizio N, Peidro R, Pesce R.

Instituto de Cardiología y Cirugía Cardiovascular. Fundación Favaloro.

Introducción: Las dispersiones de los intervalos QT (QTd) y JT (JTD) constituyen marcadores de la heterogeneidad de la repolarización, y podrían emplearse en la evaluación de los pacientes (ptes) con Síndrome de QT Largo congénito (SQTL). **Objetivo:** Analizar la dispersión de los intervalos QT, QTa (QT ápex), Taf (T ápex-T final) y JT en normales y en ptes con SQTL, con la finalidad de identificar nuevos parámetros para la estratificación de estos pacientes. **Material y Métodos:** Grupo control: 20 sanos (9 mujeres), de 22 a 56 años ($X: 29 \pm 11$). Grupo SQTL: 23 ptes. (13 mujeres), de 8 a 47 años ($X: 24 \pm 14$), con probabilidad intermedia o alta (índice de Schwartz), 15 con síncope previo y 7 con muerte súbita familiar. Las mediciones se efectuaron sobre un ECG de 12 derivaciones a 25 mm/seg (fórmula de Bazett para su corrección). La dispersión fue definida como la diferencia entre los valores máximos y mínimos en las doce derivaciones. **Resultados:**

	QTd	QTcd	QTad	Tafed	JTd	JTcd
Norm	40 ± 9	44 ± 12	30 ± 10	37 ± 11	33 ± 10	37 ± 11
SQTL	60 ± 40	65 ± 43	50 ± 33	57 ± 39	58 ± 44	63 ± 49
p	0.01	0.76	0.01	0.03	0.05	0.27

Conclusiones: 1) Los ptes con SQTL poseen una mayor dispersión de la repolarización ventricular en comparación con la población control. 2) La dispersión del intervalo QT puede utilizarse como un método no invasivo adicional para la evaluación diagnóstica de los ptes con SQTL.

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INTERVALOS QT Y QTC EN EL HOLTER DE 24 HS VS. DISPERSIÓN DEL QT EN EL ECG EN PACIENTES CON SÍNDROME DE QT PROLONGADO CONGÉNITO

Lanzotti M, Tonelli A, Keegan R, Boscatto V, Valero E, Galizio N, González J, Pesce R.

Instituto de Cardiología y Cirugía Cardiovascular. Fundación Favaloro.

Objetivos: Definir un rango de QTd en normales y compararlo con los ptes con SQTL. Analizar la dispersión del intervalo QT en normales y en ptes con SQTL y correlacionar los valores de QTd en el ECG entre la dispersión en el Holter de 24 hs.

Métodos: Grupo control: 20 sanos (9 mujeres), de 22 a 56 años ($X: 29 \pm 11$). Grupo SQTL: 16 ptes (9 mujeres), de 2 a 49 años ($X: 21 \pm 16$), con probabilidad intermedia o alta (índice de Schwartz). Medición manual: ECG de 12 derivaciones a 25 mm/seg. Medición automática: los intervalos QT y QTc en un Holter de 24 hs. Parámetro umbral: QTd > 58 ms (2 SD por arriba del promedio de QTd del grupo control).

Resultados: QTd en ECG: Grupo control: 40 ± 9 , Grupo SQTL: 60 ± 40 (p: 0.01). Tabla: Correlación entre QTd en el ECG y QT y QTc en el Holter en ptes con SQTL

SQTL	QT	QTc	% QTc > 440	% QTc > 460
QTd > 58ms	430.4	468.4	61.4%	48.6%
QTd < 58ms	386.7	430.2	49.4%	34%
p	0.04	0.05	0.58	0.46

Conclusiones: 1) La dispersión del intervalo QT fue mayor en los ptes con SQTL 2) Los ptes con SQTL con una QTd > 58 ms en el ECG presentaron valores más prolongados de QT y QTc en el Holter. 3) La medición automática de QT y QTc se correlacionó significativamente con la medición manual de QTd y constituye una técnica de utilidad en la valoración de los ptes con SQTL.

220

ANGIOPLASTIA EN ARTERIA SUBCLAVIA. EVOLUCIÓN INTRAHOSPITALARIA Y ALEJADA.

Fava C, Mendiz O, Wisner J, Lódolo M, Valdivieso L, Petrov I, Gac J, Telayna J, Londero H.

I.C. y C.C. Fundación Favaloro. Buenos Aires. Argentina.

Objetivo: evaluar la evolución hospitalaria y a largo plazo de la angioplastia de arteria subclavia (AAS).

Material y Método: se incluyeron 37 pacientes (Ptes) consecutivos entre agosto de 1992 y marzo de 2000. Se definió éxito angiográfico (EA) a la lesión residual <30%, y éxito clínico (EC) al éxito angiográfico sin complicaciones mayores (muerte, accidente cerebrovascular (ACV) mayor y amputación). Características clínicas: edad 58 ± 3 años, hombres 59.5%, diabetes 18.9%, hipertensión arterial 62.2%, dislipemia 51.4%, tabaquismo 62.2%, enfermedad de Takayasu 8.1%. Presentación clínica: asintomáticos 10.8%, síncope 8.1%, accidente isquémico transitorio 2.7%, ACV 2.7%, mareos 32.4%, impotencia funcional 43.3%.

Resultados: Se realizó AAS derecha en 24.3%, AAS izquierda en 70.3%, AAS bilateral en 5.4%. Una AAS izquierda se asoció a angioplastia vertebral. En 89.2% de los Ptes se implantó stent. Se obtuvo EA y EC en el 94.6%. Un Pte (2.7%) presentó un ACV menor. En el seguimiento de 32 (100%) Ptes con más de 3 meses desde la AAS (media de 27.8 ± 17.5 meses, rango 3-66), 28 Ptes (87.5%) estaban asintomáticos; 2 Ptes (6.3%) presentaron reestenosis sintomática tratada con angioplastia en un caso y con cirugía en otro. Un Pte (3.1%) presentó un ACV mayor y un Pte (3.1%) falleció de causa no relacionada. Dos Ptes (6.3%) asintomáticos presentan diferencia tensinal y están bajo tratamiento farmacológico.

Conclusiones: La AAS en esta serie mostró buen resultado clínico inicial y baja tasa de complicaciones a largo plazo.

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PREDICTORES DE MORTALIDAD EN PACIENTES CON ANGIOPLASTIA CORONARIA ELECTIVA CON STENT

223

Petrov I., Gac J., Valdivieso L., Wisner J., Mendiz O., Telayna J., Ledelo M., Fava C., Londero H., I.C. y C.C.

Fundación Favaloro, Buenos Aires, Argentina.

OBJETIVO: Evaluar los predictores clínicos y angiográficos de mortalidad hospitalaria en pacientes sometidos a angioplastia coronaria (ATC) con stent definitivo.

MÉTODOS: Desde abril de 1993 hasta febrero del 2000 en nuestra institución se realizaron 2236 ptes con stent electivo. Se compararon las características clínicas y angiográficas entre los ptes fallecidos (grupo A) y el resto de la población (grupo B).

RESULTADOS	Grupo A	Grupo B	P
Nº de ptes	20(0.9%)	2216(99.1%)	
Edad	63.5±12	59.9±10.6	0.05
Mujeres	10(50%)	377(17%)	0.0001
Clase funcional	3.4±0.8	2.73±1.11	0.007
Diabetes	6(31.6%)	344(15.6%)	0.05
Angina estable	6(30%)	646(29.1%)	NS
Angina inestable(AI)	14(70%)	1357(61.2%)	NS
Refractaria	7(38.9%)	108(5.1%)	0.00001
Nº vasos enfermos enferm.	2.15±0.93	1.72±0.8	0.01

En el análisis multivariado (Regresión logística) predictores independientes de mortalidad fueron la angina inestable refractaria ($p < 0.002$, OR 6.3, IC 95%: 1.96-13) y la diabetes ($p < 0.05$, OR 2.91, IC 95%: 1.0-8.49), y como predictores negativos el sexo masculino ($p < 0.004$, OR 0.21, IC 95%: 0.07-0.61) y la angina estable ($p < 0.05$, OR 0.24, IC 95%: 0.05-1.06).

CONCLUSIONES: La angina inestable refractaria y la diabetes fueron predictores independientes de mortalidad; el sexo masculino y la angina estable en cambio fueron predictores negativos de mortalidad.

PRUEBA ERGOMÉTRICA EVOLUTIVA EN UN CASO DE ENFERMEDAD DE KAWASAKI.

225

Lipchenco J., Lipchenco I.

Centro Referencia de Salud "Servicio Occidente". Santiago-Chile.

En el síndrome de Kawasaki es temida la complicación coronaria. Dado que el Test Ergométrico (TE) es un método excelente para documentar y evaluar el riesgo coronario, se relata el caso de una paciente que a los tres meses tuvo la enfermedad de Kawasaki con compromiso de ambas arterias coronarias (aneurisma biconoronario e infarto posteroinferior de VI). Evolucionó satisfactoriamente hasta los 2½ años, y entonces comienza con dolor precordial de reposo y de esfuerzo. A los 3 años y 2 meses se hace TE en treadmill con protocolo de Bruce. El ECG de reposo tiene signos de neerosis antigua de miocardio posteroinferior de VI y atípicas de T en región anterolateral. El trazado de esfuerzo se torna en aVS y a los 30 s de la tercera etapa tiene fatiga, llanto y gesto de dolor. Al alcanzar frecuencia cardíaca máxima hay descenso del punto J de 3 mm, segmento ST deprimido 0.12 s, situación que se mantiene 10 s en trazado inmediato de esfuerzo. Esta prueba fue interpretada como positiva en cuanto a insuficiencia de flujo coronario. A los 3½ años se realiza bypass aortocoronario a la descendente anterior con arteria mamaria. Recuperación progresiva satisfactoria. Se efectuó control con TE a los 4, 8 y 12 meses del postoperatorio. Todas las pruebas fueron subjetivamente negativas y la mayor diferencia estriba entre el test preoperatorio y el del año, el cual sólo mostró alteraciones mínimas e inespecíficas. Los ECG de las pruebas evidenciaron descenso de ST de 1 a 3 mm y ascenso rápido. Dado sus antecedentes quirúrgicos, se consideraron no específicos. Al año el ECG de reposo mostró normalización de la onda T en región anterolateral de VI. Se destaca que el TE como método no invasivo y fisiológico fue valioso, y en parte decididor, independiente de la edad de la paciente.

VALVULOPLASTIA MITRAL EN EMBARAZADAS

224

Lódolo M., Wisner J., Mendiz O., Valdivieso L., Fava C., Petrov I., Gac J., Telayna J., Londero H.

I.C. y C.C. Fundación Favaloro, Buenos Aires, Argentina.

Objetivo: evaluar la evolución hospitalaria y clínica hasta el parto de la valvuloplastia mitral percutánea (VMP) en pacientes con estenosis mitral severa (EMS), embarazadas. **Material y métodos:** entre 1992 y 2000 se incluyeron 5 pacientes (Ptes) con EMS y embarazo. Se consideró VMP óptima a la obtención de área valvular mitral (AVM) mayor de 1.5 cm^2 en ausencia de complicaciones mayores (insuficiencia mitral severa, reemplazo valvular o muerte). Características clínicas: edad media 30 ± 10 años, score de Wilkins 8.2 ± 1.6 , antecedente de fiebre. Reumática en 4 Ptes, clase funcional (CF) III 4 Ptes y CF IV 1 Pte. Todas las Ptes se encontraban en ritmo sinusal. Edad gestacional media de 28.2 semanas. En 3 Ptes se utilizó balón de Inoue y en 2 Ptes técnica de doble balón.

Resultados hemodinámicos:

	Pre VMP	Post VMP	P
Gradiente Transvalvular (mmHg)	22.2 ± 11.1	6.8 ± 3.2	0.01
AVM (cm^2)	0.86 ± 0.3	1.82 ± 0.2	0.0001
Presión Sistólica Pulmonar (mmHg)	71.3 ± 14.9	49.8 ± 12	0.03
Volumen Minuto (L/min)	4 ± 0.9	5.0 ± 0.9	0.11

Se obtuvo VMP óptima en el 100%. No se presentaron complicaciones mayores intrahospitalarias. En 4 Ptes se efectuó cesárea por indicación obstétrica y en una parte eutócico sin presentar complicaciones para la madre ni para el feto con un promedio de 37.6 semanas de gestación.

Conclusión: en esta pequeña población de Ptes embarazadas la VPM fue un procedimiento factible, seguro con aceptables resultados a corto plazo.

EPIDEMIOLOGÍA Y PREDICTORES DE MORTALIDAD EN LA ENDOCARDITIS INFECCIOSA.

226

Mujica R., Mancini L., Godoy G., Olano D., Corsiglia D., Ronderos R.

Hospital "SAN JUAN DE DIOS" La Plata.

OBJETIVOS: Analizar localización, patologías asociadas, germen, necesidad de cirugía y predictores de mortalidad en pacientes (pi) con Endocarditis Infecciosa (E.I.).

MATERIAL Y MÉTODOS: Estudio retrospectivo observacional, entre 1989 y 1999, de 500 p con E.I. de alta probabilidad según Durack y La Plata. Edad media 45 ± 17 años (a) rango 15-86a, hombres 348p (70%). Se realizó estudio clínico y bacteriológico. Análisis estadístico uni y multivariado con Epi Info. **RESULTADOS:** Localización: Aórtica 235p (47%), mitral 108p (22%), tricuspide 64p (13%), pulmonar 6p (2%), combinadas 79p (15%), mural 6p (1%). Protesicas 69p (14%), nativas 431p (86%). Bacteriología: gérmenes frecuentes grupo estafilococo 140p (28%), estreptococo 127p (25%), enterococo 27p (5%). Hemocultivo negativo 128p (26%). Patología asociada: odontológica 40p (8%), infección urinaria (IVU) 28p (6%), sin patología asociada 212p (42%). Cirugía: 237p (47.5%). Mortalidad quirúrgica 63p (26%). Mortalidad global 120p (24%). Predictores de mortalidad: afección Aórtica p 0.04, drogadicción OR 2.34 p no significativa (ns), patología abdominal OR 2.15 p ns, germen enterococo OR 1.94 p ns, germen candida OR 1.60 p ns. **CONCLUSIONES:** La E.I. es frecuente en hombres. La valvula más comprometida es la Aórtica. Las patologías asociadas más frecuentes son la odontológica e IVU. Los gérmenes prevalentes son del grupo estafilococo y estreptococo. Alta necesidad de cirugía y alta mortalidad global. El único predictor de mortalidad independiente es el compromiso valvular aórtico.

PREDICTORES DE MORTALIDAD EN PACIENTES CON ANGIOPLASTIA CORONARIA ELECTIVA CON STENT

223

Gac J., Valdavieso L., Wisner J., Mendiz O., Telayna I., Léodo M., Fava C., Londero H. I.C.y C.C.

Fundación Favaloro. Buenos Aires. Argentina.

OBJETIVO: Evaluar los predictores clínicos y angiográficos de mortalidad hospitalaria en pacientes (ptes) sometidos a angioplastia coronaria (ATC) con stent electivo.

MÉTODOS: Desde abril de 1993 hasta febrero del 2000 en nuestra institución se realizaron 2236 ptes con stent electivo. Se compararon las características clínicas y angiográficas entre los ptes fallecidos (grupo A) y el resto de la población (grupo B).

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VALVULOPLASTIA MITRAL EN EMBARAZADAS

224

Léodo M., Wisner J., Mendiz O., Valdavieso L., Faya C., Petrov I., Gac J., Telayna J., Londero H.

I.C. y C.C. Fundación Favaloro. Buenos Aires. Argentina.

Objetivo: evaluar la evolución hospitalaria y clínica hasta el parto de la valvuloplastia mitral percutánea (VMP) en pacientes con estenosis mitral severa (EMS), embarazadas. **Material y métodos:** entre 1992 y 2000 se incluyeron 5 pacientes (Ptes) con EMS y embarazo. Se consideró VMP óptima a la obtención de área valvular mitral (AVM) mayor de 1.5 cm² en ausencia de complicaciones mayores (insuficiencia mitral severa, reemplazo valvular o muerte). Características clínicas: edad media 30.2±10 años, score de Wilkins 8.2±1.6, antecedente de Fiebre Reumática en 4 Ptes, clase funcional (CF) III 4 Ptes y CF IV 1 Pte. Todas las Ptes se encontraban en ritmo sinusal. Edad gestacional media de 28.2 semanas. En 3 Ptes se utilizó balón de Inoue y en 2 Ptes técnica de doble balón.

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Conclusión: en esta pequeña población de Ptes embarazadas la VPM fue un procedimiento factible, seguro con aceptables resultados a corto plazo

EPIDEMIOLOGÍA Y PREDICTORES DE MORTALIDAD EN LA ENDOCARDITIS INFECCIOSA.

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2984 Improvement of Global and Regional Left Ventricular Function by Percutaneous Revascularization of Chronic Coronary Occlusions and Predictive Value of TI-201 Scintigraphy

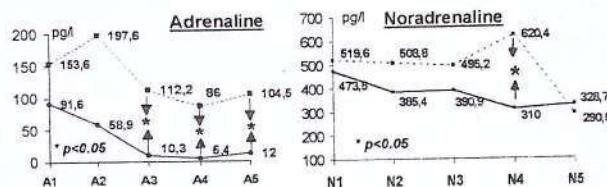
J. Jorgova, I. Petrov, S. Iovev, M. Gacheva. Dept. of Cardiology, University Hospital "St. Ekaterina", Sofia, Bulgaria

The LV function is the most important predictor of survival for the patients with MI and chronic coronary occlusions. TI-201 scintigraphy detects viable myocardium even in the dissimilar infarct-related segments. This suggests that restoration of perfusion of the underlying vessel zone, would restore the myocardial contractile function. The study enrolled 64 patients-48 (75%) men and 16 (25%) women, mean age 51 ± 9 years, with primary successful PTCA of chronic occluded coronary artery; 32 (50%) of them with Q-wave MI and 15 (23.44%) with global LVEF $\leq 35\%$. Angiographic follow-up 12 ± 2 months after PTCA underwent 38 patients and 12 of them TI-201 myocardial scintigraphy before and after PTCA. Restenosis occurred in 14 of 38 patients (36.8%), reocclusion-in 4 (10.53%), no restenosis-in 20 (52.7%). In the group without restenosis the global LVEF increased significantly from $50.5 \pm 12.52\%$ before to $56.17 \pm 11.8\%$ after PTCA ($p \leq 0.02$). The improvement of the regional EF is most expressed for the patent recanalized proximal LAD - the EF of the antero-lateral segment increased from $27.45 \pm 18.16\%$ before to $45.5 \pm 17.09\%$ after PTCA ($t = -4.92$, $p \leq 0.001$). Also present but less expressed is the improvement for the patient RCx - from $38.3 \pm 21.4\%$ to $46.25 \pm 18.35\%$ ($t = -2.57$, $p \leq 0.02$) and for RCA - from $40.95 \pm 20.42\%$ to $47.5 \pm 18.7\%$ ($t = -1.97$, $p = ns$). In patients with restenosis at follow-up there was no improvement regardless the treated vessels. The TI-201 imaging demonstrates high predictive value- from assynergic 30 segments 20 (67%) were with signs of vitality. After successfull PTCA were determined 15 segments (75%) with improved perfusion. From the 5 segments without improvement - 3 were in zone with restenosis and 2 - in zone without restenosis but dyskinetic. We concluded that PTCA is a reliable method for regional and global LV wall motion improvement. TI-201 scintigraphy is an appropriate method in determining the procedural indications.

2985 Reperfusion Therapy Improves Neuroendocrine Activation After Acute Myocardial Infarction

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Potentially harmful activation of the adrenergic nervous system occurs in the early hours of acute myocardial infarction (AMI). To test the hypothesis that reperfusion (RP) therapy (thrombolysis and primary PTCA) can improve the neuroendocrine profile after AMI we measured plasma concentrations of dopamine, adrenaline and noradrenaline on admission, at 6 h, 24 h, 48 h and 6th day, in 20 patients (pts) admitted in the first 24 hours after onset of symptoms. Fourteen pts were treated with RP (8 with thrombolysis and 6 with primary PTCA); 6 pts were conventionally managed. Pts previously treated with diuretics, beta blockers or ACE inhibitors were excluded as well as pts on Killip class > 1 . The baseline demographic characteristics were not different. Plasma concentrations were compared considering two groups: reperfusion (—●—) versus non reperfusion group (—▲—).



Compared with conventional therapy, RP induced a steep decline in plasma adrenaline and noradrenaline, with statistically significant different levels of adrenaline at 24 h (A3), 48 h (A4) and 6th (A5) day, and noradrenaline at 48 h (N4). The baseline levels and further measurements of dopamine are similar.

The findings of the present series suggest that sympathetic nervous system response to acute myocardial infarction is significantly modified by reperfusion therapy. Further studies are needed to confirm these data which can provide adjuvant support to the open artery concept.

2986 Combined Operations for Myocardial Revascularization and Carotid Endarterectomy

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There is still controversy about the treatment of associated coronary artery disease and carotid artery obstruction.

Between 1979 and 1997 (Jun), 12,693 patients (pts) were operated on for myocardial revascularization. Combined operations (myocardial revascularization and carotid endarterectomy) were done in 83 (0.65%) pts, during the same period. Patient age ranged from 46 to 88 years with an average of 68.7 yrs, 72.3% were male, 40 pts had previous myocardial infarction. Associated diseases, were: diabetes mellitus in 20 pts, chronic renal insufficiency in 10 pts, 60 pts were in FC (functional class) III or IV for angina; 10 pts had congestive cardiac insufficiency; left main coronary obstruction was present in 23 pts; 45 pts had bilateral carotid obstruction, and in 9 of them one carotid artery was completely obstructed. 32 pts had transient cerebral ischemic attack and 4 pts had stroke with sequelae. Hospital mortality was 10.8% (9/83). Permanent stroke occurred in one patient. Eight of the 9 deaths occurred in patients 70 years or older. Carotid endarterectomy was done just before cardiopulmonary bypass in 74 and in the 9 pts with one of the carotid arteries occluded, it was done after cardiopulmonary bypass was established and the patient temperature was 25°C .

Considering that only one patient had perioperative stroke, we think that this strategy is adequate for this association of diseases.

2987 Predictors of Luminous Loss and Restenosis After Coronary Angioplasty, the Role of Lipoprotein (a) and Serum Lipids

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Lipoproteins and lipids have been widely studied as predictors of restenosis after coronary angioplasty (PTCA) with conflicting results. We investigated the association of lipoprotein(a) [Lp(a)], apolipoprotein A (apoA), apolipoprotein B (apoB), HDL-cholesterol (HDL), total-cholesterol (chol) and triglycerides (TG) to luminal loss and restenosis after PTCA. From a medical intervention trial not lipidlowering, lipoproteins and lipids were measured in 337 pts before PTCA, 81% males, mean age 55 years ± 8.5 . Reangio was done after a mean of 19 weeks in 98%. Quantitative coronary angiography was done. Luminal loss was defined as minimal luminal diameter (MLD) post-PTCA minus MLD at follow-up divided by the interpolated reference diameter of the vessel. Restenosis was defined as more than 50% loss of the gain achieved by PTCA, and occurred in 25% of the pts. The data was analysed in two ways. 1) A continuous approach using luminal loss as the dependent variable in a multiple linear regression model, adjusted for age and sex. 2) A logistic regression analysis was performed to determine potential predictors of restenosis with Lp(a), apoA, apoB, HDL, chol, TG, age and sex as covariates. There were no differences in the lipoprotein and lipid levels between the groups. Data are presented as median and (interquartile range).

	Lp(a) [*]	apoA [*]	apoB [*]	HDL [†]	chol [†]	TG [†]
Restenosis(-)	230 (480)	102 (25)	135 (59)	0.94 (0.34)	5.6 (1.3)	1.5 (0.95)
Restenosis(+)	176 (371)	102 (24)	138 (51)	0.87 (0.34)	5.5 (1.4)	1.7 (0.97)

Based on the linear regression analysis there were no independent association between the various variables and luminal loss. Similar and consistent results were obtained using the logistic approach.

In conclusion, Lp(a), apoA, apoB, HDL, chol, and TG are not independently associated with luminal loss and risk of restenosis after PTCA evaluated with quantitative coronary angiography.

2988 Effects of Pravastatin on the In Vivo Lipoprotein Metabolism in Man

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HMG-CoA reductase inhibitors such as Pravastatin (= Prava) are highly effective lipid-lowering drugs. We studied the kinetics of ApoA-I and ApoB-100 in 6 healthy men utilizing stable isotope tracer techniques (3D-Leucine) as

Abstract Submissions

Country	Total of Abstracts	Approved Abstracts	Percentage of Approval
BRAZIL	830	367	44.2
ITALY	356	182	51.1
USA	248	159	64.1
POLAND	231	112	48.5
GERMANY	208	152	73.1
ARGENTINA	171	70	40.9
RUSSIA	141	37	26.2
FRANCE	121	77	63.6
UK	113	75	66.4
SPAIN	110	57	51.8
YUGOSLAVIA	106	41	38.7
GREECE	87	48	55.2
HUNGARY	83	44	53.0
MEXICO	80	26	32.5
REP. OF MALDOVA	75	21	28.0
TURKEY	68	33	48.5
JAPAN	65	41	63.1
BELGIUM	60	48	80.0
CHINA	59	33	55.9
UKRAINE	48	7	14.6
THE NETHERLANDS	40	31	77.5
ISRAEL	39	29	74.4
AUSTRIA	39	15	38.5
INDIA	39	14	35.9
SWEDEN	38	25	65.8
FINLAND	34	26	76.5
PORTUGAL	32	12	37.5
SLOVAK REPUBLIC	32	12	37.5
DENMARK	31	23	74.2
IRAN	31	8	25.8
TAIWAN	30	10	33.3
SWITZERLAND	27	22	81.5
CANADA	25	18	72.0
ROMANIA	23	11	47.8
PHILIPPINES	21	6	28.6
CZECH REPUBLIC	19	8	42.1
MACEDONIA	18	2	11.1
EGYPT	17	6	35.3
BULGARIA	17	5	29.4
KOREA	16	13	81.3
NORWAY	14	10	71.4
COLOMBIA	14	6	42.9
VENEZUELA	14	6	42.9
CROATIA	14	4	28.6
SLOVENIA	11	4	36.4
URUGUAY	10	3	30.0
ESTONIA	9	4	44.4

Country	Total of Abstracts	Approved Abstracts	Percentage of Approval
GEORGIA	9	2	22.2
MALAYSIA	9	1	11.1
SINGAPORE	8	5	62.5
AUSTRALIA	7	5	71.4
BELARUS	7	3	42.9
SAUDI ARABIA	7	2	28.6
INDONESIA	6	3	50.0
LITHUANIA	6	3	50.0
CHILE	6	1	16.7
PERU	5	1	20.0
ECUADOR	5	0	0.0
TUNISIA	5	0	0.0
ARMENIA	4	3	75.0
SOUTH AFRICA	4	3	75.0
LATVIA	4	1	25.0
MOROCCO	4	1	25.0
AZERBAIJAN	4	0	0.0
VIETNAM	4	0	0.0
PUERTO RICO	3	3	100.0
KUWAIT	3	2	66.7
BOLIVIA	3	1	33.3
CUBA	3	1	33.3
NEPAL	3	1	33.3
ALBANIA	3	0	0.0
TURKMENISTAN	3	0	0.0
HONG KONG	2	2	100.0
PARAGUAY	2	2	100.0
BANGLADESH	2	1	50.0
NIGERIA	1	1	100.0
SRI LANKA	1	1	100.0
DOMINICAN REPUBLIC	1	0	0.0
KYRGYZSTAN	1	0	0.0
PANAMA	1	0	0.0
UZBEKISTAN	1	0	0.0
Total of Countries	82	4,051	2,012
			49.7

TI-201 SPECT for the detection of viable hibernating myocardium in chronic coronary occlusion

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Twelve patients with 17 chronic occlusions over the last 1-14 months were examined with the SPECT TI-201 myocardial perfusion scintigraphy and angiography before and 2 months after the PTCA (CABG), for the assessment of the improvement of the perfusion and kinetics. This improvement served as a reference method for the positive and negative predictive value of the SPECT study for the detection of viable hibernating myocardium. There were 52 segments (67%) with severe reduced uptake of Thallium from the infarcted area and 44 (56%) were viable. On the basis of angiography the kinetics of 55 segments was assessed. Of the segments with mild wall motion abnormalities (WMA) (19/55), 95% (18/19) were viable. Of the segments with severe WMA (36/55), 14/36 (39%) were viable. A good correlation between the severity of perfusion defects and WMA was demonstrated. The positive and negative predictive values of the SPECT-study were 87% and 84%. No influence of the duration of occlusion was proved. The presence of angiographically detected collateral circulation was related to the higher percentage of viable segments. The kinetic improvement after PTCA was detected in 34 segments (16 of those with mild WMA - 84%, and 16 of those with severe WMA - 45%). Functional improvement was detected in 8 patients. The left ventricular ejection fraction increase was 5.6% + 4.6%. It was greater in the group with left ventricular dysfunction (7.6% + 4.8% versus 1.75% + 1.08%, p<0.01).

Key words: coronary disease; tomography, emission-computed, single-photon; thallium radioisotopes; myocardial stunning

Introduction

The detection of viable hibernating myocardium is important for the prediction of the functional improvement after revascularization.¹⁻⁴

The comparison of different radio- and non-radioisotope methods for the evaluation of myocardial viability demonstrates a good position of TI-

201 rest-redistribution technique.⁵⁻⁸ In this method the accepted criteria of viability are: a significant increase of delayed (redistribution) uptake with >10% in the infarct area, and final (post-procedure) TI-201 content $\geq 50\%$.^{9,10}

The aim of the study was to evaluate the viable hibernating myocardium in chronic occlusions with previous myocardial infarction according to the SPECT criteria of TI-201 myocardial perfusion scintigraphy. The influence of both: the duration of occlusion and of the presence of collateral circulation were also under estimation. The post-procedural changes in the function and perfusion served as a reference method.

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Materi

Twelve patients with 17 chronic occlusions and documented myocardial infarction during the last 1 to 14 months were examined. The left ventricular ejection fraction decreased to different degree (Table 1). Revascularization (PTCA,CABG) was performed in 11 patients. There were no changes in the function and perfusion 2 months later. Evaluation of the accuracy of the SPECT study was made by evaluation of the accuracy of the SPECT study was made by angiography and functional improvement was evaluated 2 months later.

Table 1. Pre- and post-procedural changes in the function and perfusion

No	Sex	Age
1	M	48
2	M	65
3	M	38
4	M	60
5	M	50
6	M	50
7	F	47
8	M	58
9	M	64
10	M	56
11	M	17
12	M	63
Total		

MI - myocardial infarction, V - viable, IA - infarct area, Ant - anterior, AB - anterobasal, Inf - inferior, Apic - apical, A - akinesis, H - hypokinesis.

Angiographic

The coronary anatomy was evaluated 2 months after the revascularization. There were 17 chronic occlusions (10 of LAD, 4 of LCX, 3 of RCA, 1 of circumflex, 1 of posterior descending artery). Collateral circulation was detected in 11 patients. There were no changes in the function and perfusion 2 months later. Evaluation of the accuracy of the SPECT study was made by angiography and functional improvement was evaluated 2 months later.

35. PERCUTANEOUS TRANSLUMINAL CORONARY ANGIOPLASTY (PTCA) - RELIABLE METHOD FOR REVASCULARISATION IN THE FIRST HOURS OF ACUTE MYOCARDIAL INFARCTION AND METHOD OF CHOICE IN CARDIOGENIC SHOCK

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In the article we present the results of 22 patients with acute myocardial infarction (AMI) revascularized with PTCA in the Cardiology Clinic of "St. Ekatherina", Sofia. The pts were devided in two groups and were followed of a period of 7.5 ± 2 months for acute complications (rec. AP< repeat MI, elective CABG, re - PTCA, late mortality).

Group I- patients with AMI

A- up to 6 hours from begining of pain

B- after 6 hours from begining of pain

Group II - patients with cardiogenic shock

Results:

Group I- acute complications weren't. Late complications - repeat MI there was in one patient (4.4 per cent) with multivessel disease elective CABG - one patient with multivessel disease. Late complications there weren't.

Group II- acute complications - emergency CABG. 2 patients with multivessel disease. Late complications there weren't.

Conclusion - PTCA is reliable method for revascularization in the first hours of AMI and method of choice in cardiogenic shock.

36. ПРИМАРНА КОРОНАРНА АНГИОПЛАСТИКА VERSUS ИНТРАВЕНОЗНА СТРЕПТОКИНАЗА КАЈ АКУТЕН МИОКАРДЕН ИНФАРКТ

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Цел на студијата беше компарација помеѓу примарна коронарна агиопластика (PTCA) и интравенозна стрептокиназа (стк) во однос на стапката на успешна реперфузија на инфарктната артерија, левовентрикуларната функција, рекурентната исхемија и интрахоспиталниот морталитет кај пациенти со АМИ.

Во студијата се опфатени 108 пациенти применети во првите 6 часа од почетокот на АМИ, од кои 52 третирани со примарна PTCA и 56 со и. в. стк.

Успешна реперфузија (TIMI flow 2⁺, 3⁺) беше постигната кај 51 (98.1%) од пациентите со примарна PTCA и кај 37 (67%) од пациентите со стк ($p < 0.01$). Ехокардиографски одредуваната левовентрикуларна ежекциона фракција (ЛВЕФ) при испис беше значајно повисока после примарната PTCA ($68 \pm 12\%$) споредено со $56 \pm 14\%$ кај пациентите со стк ($p < 0.05$). Рекурентна исхемија беше регистрирана кај 2 (3.8%) пациенти после примарна PTCA и кај 8 (14.3%) пациенти после стк ($p < 0.05$). После примарната PTCA стапката на интра хоспиталниот морталитет беше 1.9% (1 пациент) а после стк 10.7% (6 пациенти), $p < 0.05$. Добиените резултати покажуваат дека примарната PTCA резултира со повисока стапка на реперфузија, подобра ЛВ функција и помал ризик од рекурентна исхемија и смртност во однос на и. в. стрептокиназа.

37. АНГИОПЛАСТИКА И СТЕНТИРАЊЕ НА КОМПЛЕКСНИ ЛЕЗИИ НА КОРОНАРНИТЕ АРТЕРИИ

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Цел на трудот е да се прикажат резултатите од интервентните процедури при комплексни или повеќесадовни лезии на коронарните артерии.

Во тој смисол третирани се вкупно 401 лезија кај 389 пациенти, 83 пациенти со АМИ, 32 пациенти со нестабилна ангине (со тромботичен материјал или коронарна дисекција), 11 со повеќесадовна болест и 35 елективни со елементи на тип В2 или тип С на коронарни лезии (вкупно 161 пациент со 180 лезии), третирани се со PTCA, стентирање и DCA.

процедури	AMI	AP п.с.	вакум	сочене засојчи	живот	избрвни	Контр. Каси
PTCA	79	29	14	20	132	64%	12
стентирање	4	4	29	12	29	100%	1
DCA	10	0	2	10	2	100%	0
вкупно	83	33	35	22	173	13	

Компликациите биле 2 егзитуси после PTCA на АМИ и 1 после стентирање на АМИ.

38. ИНТЕРВЕНТИИ ПРОЦЕДУРИ КАЈ АКУТЕН КОРОНАРЕН СИНДРОМ

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Акутниот коронарен синдром ги опфаќа најчестиоте две форми на коронарната артериска болест, акутниот инфаркт на миокардот и нестабилната форма на ангине пакторис.