Sabato 25 Marzo 2023
HOTEL CASCINA FOSSATA
Via Ala di Stura 5 - Torino
IL PAZIENTE FRAGILE IN CARDIOLOGIA
VI Edizione

Cardiopatia ischemica cronica: terapia farmacologica ottimale e opzioni percutanee nel paziente con angina refrattaria

Salvatore Colangelo

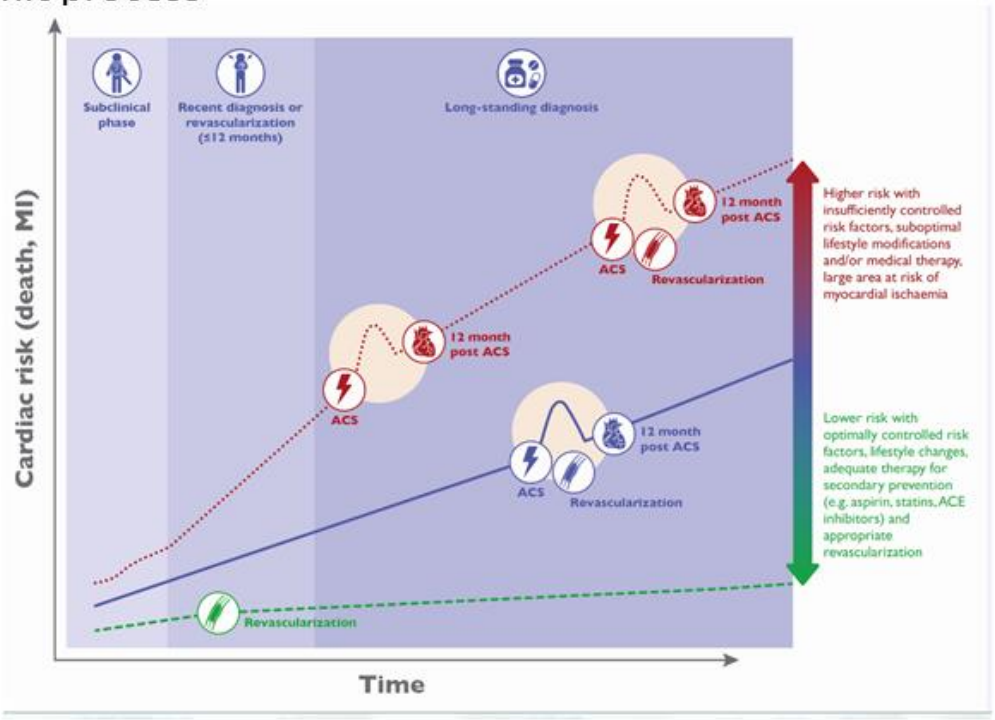
S.C. Cardiologia – Ospedale San Giovanni Bosco Torino

2019 ESC Guidelines on the diagnosis and management of chronic coronary syndromes

ESC
European Society of Cardiology

Natural history of chronic coronary syndromes

A dynamic process



Patients with angina and/or dyspnoea and coronary artery disease

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Lifestyle recommendations

Smoking cessation	Use pharmacological and behavioural strategies to help patients quit smoking. Avoid passive smoking.
Healthy diet	Diet high in vegetables, fruit, and wholegrains. Limit saturated fat to <10% of total intake. Limit alcohol to <100 g/week or 15 g/day.
Physical activity	30 - 60 min moderate physical activity most days, but even irregular activity is beneficial.
Healthy weight	Obtain and maintain a healthy weight (<25 kg/m^2), or reduce weight through recommended energy intake and increased physical activity.
Other	Take medications as prescribed. Sexual activity is low risk for stable patients not symptomatic at low-to-moderate activity levels.

Patients with angina and/or dyspnoea and suspected coronary artery disease

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Clinical classification of suspected angina

Typical angina	Meets the following three characteristics: 1. Constricting discomfort in the front of the chest or in the neck, jaw, shoulder, or arm; 2. Precipitated by physical exertion; 3. Relieved by rest or nitrates within 5 min.
Atypical angina	Meets two of these characteristics.
Non-anginal chest pain	Meets only one or none of these characteristics.

Patients with angina and/or dyspnoea and suspected coronary artery disease

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Pre-test probability of coronary artery disease

	Typical		Atypical		Non-anginal		Dyspnoea[a]	
Age	M	W	M	W	M	W	M	W
30–39	3%	5%	4%	3%	1%	1%	0%	3%
40–49	22%	10%	10%	6%	3%	2%	12%	3%
50–59	32%	13%	17%	6%	11%	3%	20%	9%
60–69	44%	16%	26%	11%	22%	6%	27%	14%
70+	52%	27%	34%	19%	24%	10%	32%	12%

[a] In addition to the classic Diamond and Forrester classes, patients with dyspnoea only or dyspnoea as the primary symptom are included. The dark green shaded regions denote the groups in which non-invasive testing is most beneficial (pre-test probability >15%). The light green shaded regions denote the groups with pre-test probability of CAD between 5-15% in which the testing for diagnosis may be considered after assessing the overall clinical likelihood based on modifiers of pre-test probability.

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	Cardiotest ANMCO	Punteggio

Organo Ufficiale di
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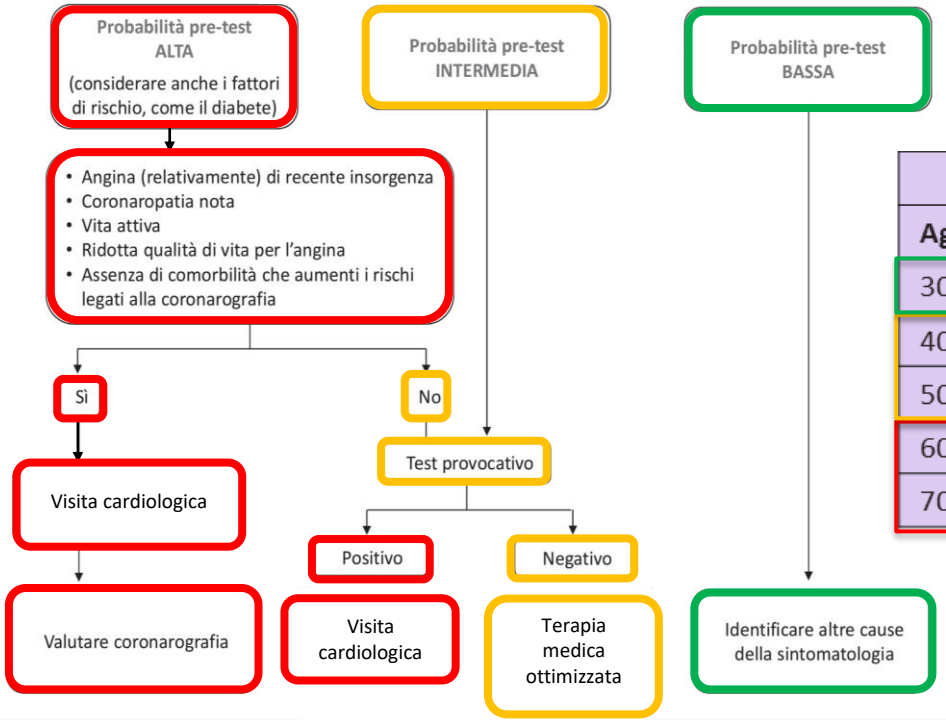
GIORNALE ITALIANO DI CARDIOLOGIA

Documento di consenso ANMCO/GICR-IACPR/SICI-GISE: La gestione clinica del paziente con cardiopatia ischemica cronica

Carmine Riccio[1] (Coordinatore), Michele Massimo Gulizia[2] (Coordinatore), Furio Colivicchi[3] (Coordinatore), Andrea Di Lenarda[4] (Coordinatore), Giuseppe Musumeci[5], Pompilio Massimo Faggiano[6], Maurizio Giuseppe Abrignani[7], Roberta Rossini[5], Francesco Fattirolli[8], Serafina Valente[9], Gian Francesco Mureddu[10], Pier Luigi Temporelli[11], Zoran Olivari[12], Antonio Francesco Amico[13], Giancarlo Casolo[14], Claudio Fresco[15], Alberto Menozzi[16], Federico Nardi[17]

ANGINA TIPICA



	Typical		Atypical		Non-anginal	
Age	M	W	M	W	M	W
30–39	3%	5%	4%	3%	1%	1%
40–49	22%	10%	10%	6%	3%	2%
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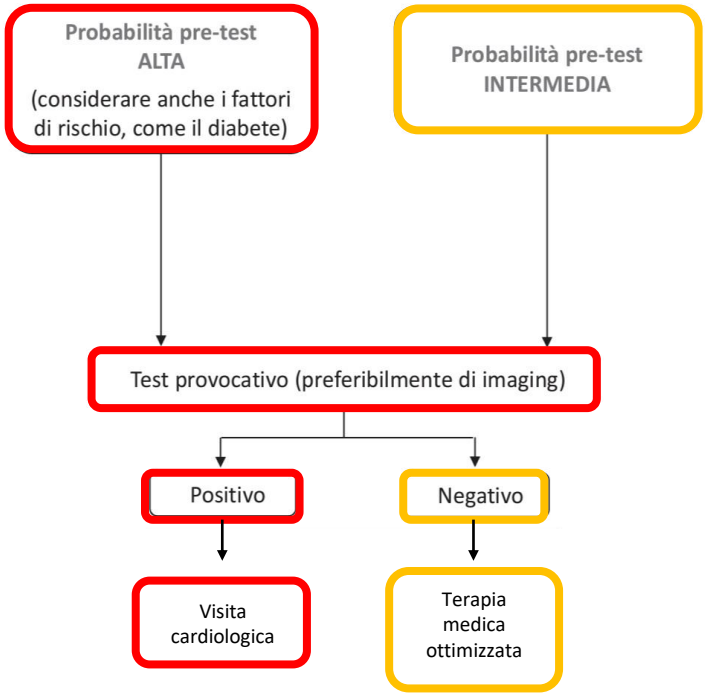
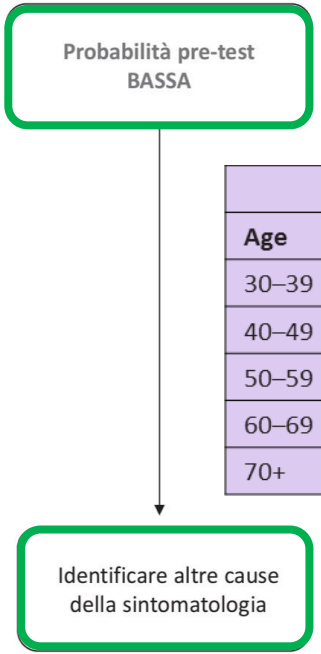
ANGINA ATIPICA





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Pazienti con angina e/o dispnea e storia di coronaropatia stabile: farmaci anti-ischemici a lungo termine

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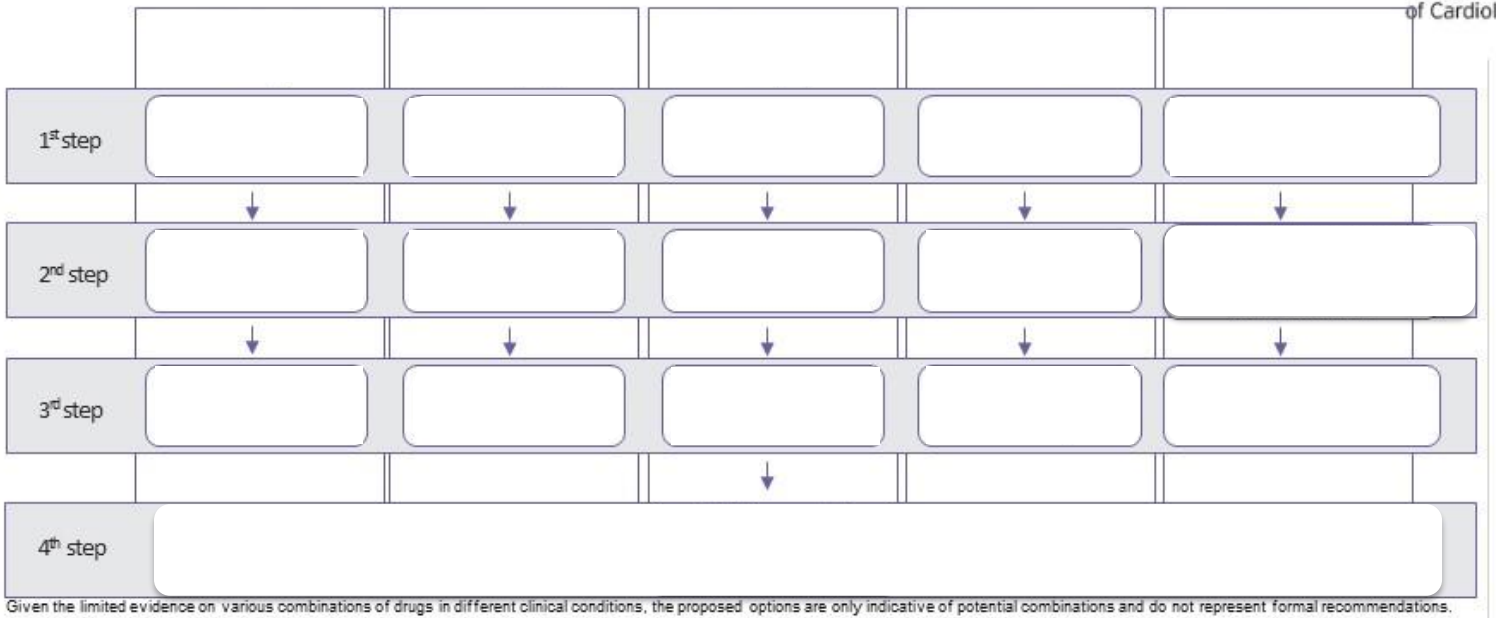

Given the limited evidence on various combinations of drugs in different clinical conditions, the proposed options are only indicative of potential combinations and do not represent formal recommendations. BB = beta-blocker; bpm = beats per minute; CCB = [any class of] calcium channel blocker; DHP-CCB = dihydropyridine calcium channel blocker; HF = heart failure; LAN = long-acting nitrate; LV = left ventricular; non-DHP-CCB = non-dihydropyridine calcium channel blocker. [a]Combination of a BB with a DHP-CCB should be considered as first step; combination of a BB or a CCB with a second-line drug may be considered as a first step; [b]The combination of a BB and non-DHP-CCB should initially use low doses of each drug under close monitoring of tolerance, particularly heart rate and blood pressure; [c]Low-dose BB or low-dose non-DHP-CCB should be used under close monitoring of tolerance, particularly heart rate and blood pressure. [d]Ivabradine should not be combined with non-DHP-CCB. [e]Consider adding the drug chosen at step 2 to the drug tested at step 1 if blood pressure remains unchanged.

Pazienti con angina e/o dispnea e storia di coronaropatia: opzioni di trattamento in prevenzione secondaria

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Recommendations	Class	Level
Antithrombotic therapy in patients with CCS and in sinus rhythm		
Adding a second antithrombotic drug to aspirin for long-term secondary prevention should be considered in patients with high risk of ischaemic events[a] and without high bleeding risk.[b]	IIa	A
Adding a second antithrombotic drug to aspirin for long-term secondary prevention may be considered in patients with at least a moderately increased risk of ischaemic events[c] and without high bleeding risk.[b]	IIb	A

[a] Diffuse multivessel CAD with at least one of the following: diabetes mellitus requiring medication, recurrent MI, PAD, or CKD with eGFR 15-59 mL/min/1.73 m².
[b] Prior history of intracerebral haemorrhage or ischaemic stroke, history of other intracranial pathology, recent gastrointestinal bleeding or anaemia due to possible gastrointestinal blood loss, other gastrointestinal pathology associated with increased bleeding risk, liver failure, bleeding diathesis or coagulopathy, extreme old age or frailty, or renal failure requiring dialysis or with eGFR <15 mL/min/1.73 m².
[c] At least one of the following: multivessel/diffuse CAD, diabetes mellitus requiring medication, recurrent MI, PAD, HF, or CKD with eGFR 15-59 mL/min/1.73 m2

ESC Guidelines on the diagnosis and management of chronic coronary syndromes (European Heart Journal 2019; 10.1093/eurheartj/ehz425)

Pazienti con angina e/o dispnea e storia di coronaropatia post-IMA:

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opzioni per duplice trattamento anti-aggregante

Drug option	Dose	Indication	Additional cautions
Clopidogrel	75 mg o.d.	Post-MI in patients who have tolerated DAPT for 1 year	
Ticagrelor	60 mg b.i.d.	Post-MI in patients who have tolerated DAPT for 1 year	
Rivaroxaban	2.5 mg b.i.d.	Post-MI >1 year or multivessel CAD	eGFR 15-29 mL/min/1.73 m^2
Prasugrel	10 mg o.d. or 5 mg o.d. if body weight <60 kg or age >75 years	Post-PCI for MI in patients who have tolerated DAPT for 1 year	Age >75 years

ESC Guidelines on the diagnosis and management of chronic coronary syndromes (European Heart Journal 2019; 10.1093/eurheartj/ehz425)

Pazienti con angina e/o dispnea e storia di coronaropatia: opzioni di trattamento in prevenzione secondaria

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Recommendations	Class	Level
Use of proton-pump inhibitors		
Concomitant use of a proton-pump inhibitor is recommended in patients receiving aspirin monotherapy, DAPT, or OAC monotherapy who are at high risk of gastrointestinal bleeding.	I	A

ESC Guidelines on the diagnosis and management of chronic coronary syndromes (European Heart Journal 2019; 10.1093/eurheartj/ehz425)

Chronic coronary syndromes in specific circumstances

Diabetes mellitus

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Recommendations	Class	Level
Risk factor (BP, LDL-C, and HbA1c) control to targets is recommended in patients with CAD and diabetes mellitus.	I	A
In asymptomatic patients with diabetes mellitus, a periodic resting ECG is recommended for cardiovascular detection of conduction abnormalities, AF, and silent MI.	I	C
ACE inhibitor treatment is recommended in CCS patients with diabetes for event prevention.	I	B
The sodium-glucose co-transporter 2 inhibitors empagliflozin, canagliflozin, or dapagliflozin are recommended in patients with diabetes and CVD.	I	A
A glucagon-like peptide-1 receptor agonist (liraglutide or semaglutide) is recommended in patients with diabetes and CVD.	I	A
In asymptomatic adults (age >40 years) with diabetes, functional imaging or coronary CTA may be considered for advanced cardiovascular risk assessment.	IIb	B

ESC Guidelines on the diagnosis and management of chronic coronary syndromes (European Heart Journal 2019; 10.1093/eurheartj/ehz425)

Chronic coronary syndromes in specific circumstances

Refractory angina

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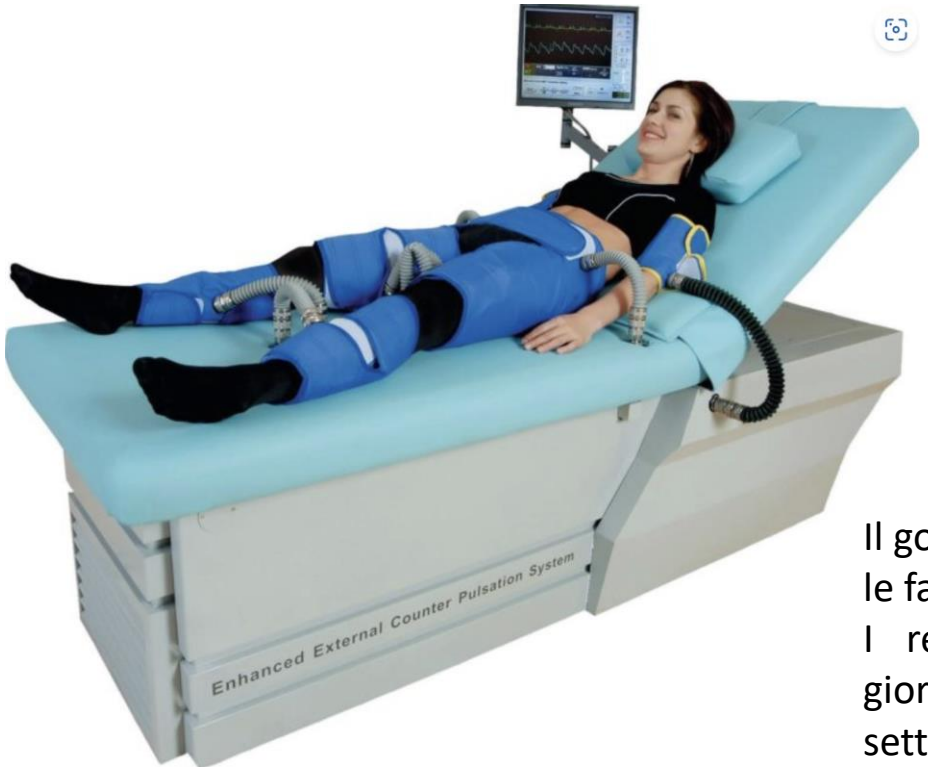
Recommendations	Class	Level
Enhanced external counterpulsation may be considered for symptom relief in patients with debilitating angina refractory to optimal medical and revascularization strategies.	IIb	B
A reducer device for coronary sinus constriction may be considered to ameliorate symptoms of debilitating angina refractory to optimal medical and revascularization strategies.	IIb	B
Spinal cord stimulation may be considered to ameliorate symptoms and quality of life in patients with debilitating angina refractory to optimal medical and revascularization strategies.	IIb	B
Transmyocardial revascularization is not indicated in patients with debilitating angina refractory to optimal medical and revascularization strategies.	III	A

ESC Guidelines on the diagnosis and management of chronic coronary syndromes (European Heart Journal 2019; 10.1093/eurheartj/ehz425)



Il tipo più comune in uso prevede tre fasce posizionate su ogni gamba (sui polpacci, sulla parte inferiore delle cosce e sulla parte superiore delle cosce (o glutei)), programmate per gonfiarsi e sgonfiarsi in base all'ECG dell'individuo.

Le fasce dovrebbero idealmente gonfiarsi all'inizio della diastole e sgonfiarsi all'inizio della sistole, procedendo in senso distale-prossimale.

Il gonfiaggio è controllato da un monitor di pressione e le fasce sono gonfiate a circa 200 mmHg.

I regimi iniziali tendono a includere trattamenti giornalieri di un'ora che si verificano 5 giorni alla settimana e durano 6-8 settimane con una media complessiva di 35 ore.

Chronic coronary syndromes in specific circumstances

Refractory angina

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ESC Guidelines on the diagnosis and management of chronic coronary syndromes (European Heart Journal 2019; 10.1093/eurheartj/ehz425)

revascularization and whose disease was refractory to standard medical therapy. A reduction of at least two CCS angina classes at 6 months (the primary end point) occurred 2.4 times as frequently in the treatment group as in the control group. Although underpowered for the prespecified secondary end points, the trial nonetheless

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Efficacy of a Device to Narrow the Coronary Sinus in Refractory Angina

Stefan Verheye, M.D., Ph.D., E. Marc Jolicœur, M.D., Miles W. Behan, M.D., Thomas Pettersson, M.D., Paul Sainsbury, M.D., Jonathan Hill, M.D., Mathias Vrolix, M.D., Pierfrancesco Agostoni, M.D., Thomas Engstrom, M.D., Marino Labinaz, M.D., Ranil de Silva, M.D., Marc Schwartz, R.C.I.S., Nathalie Meyten, M.D., Neal G. Uren, M.D., Serge Doucet, M.D., Jean-François Tanguay, M.D., Steven Lindsay, M.D., Timothy D. Henry, M.D., Christopher J. White, M.D., Elazer R. Edelman, M.D., Ph.D., and Shmuel Banai, M.D.

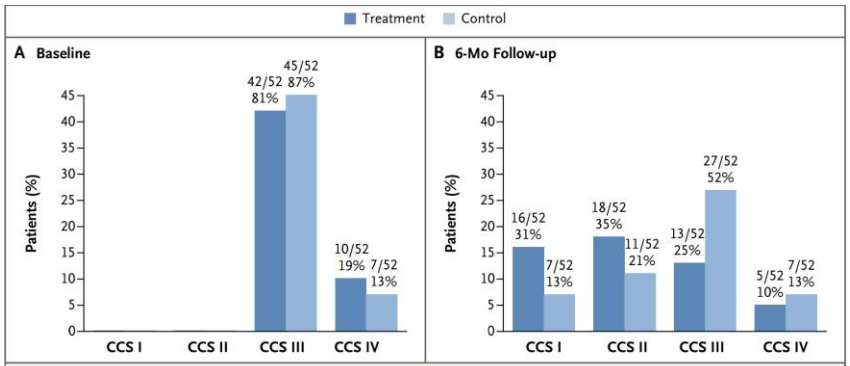

Figure 3. CCS Angina Class at Baseline and 6 Months after Randomization, According to Study Group.
At baseline, no patient in either study group had a CCS angina class of I or II, according to the inclusion criteria for the trial.

Conclusioni

- La terapia farmacologica anti/ischemica ottimale nel paziente con cardiopatia ischemica cronica e' una chimera: molto facilmente teorizzata, molto meno facilmente realizzabile
- Le opzioni interventistiche in questo tipo di paziente sono al momento poco applicate in parte per la scarsa letteratura (e per i dati ancora non sufficienti a consentirne un uso in larga scala) in parte per il costo elevato di tali tecnologie
- E' per questo auspicabile un percorso condiviso di trattamento di questi pazienti tra il medico di medicina generale e lo specialista cardiologo, per ottimizzare risorse, tempi e risultato finale atteso (miglioramento dello stato di salute del paziente)

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