CoRPS

Center of Research on Psychology in Somatic diseases

Quality of life and mortality in CAD

Where are we now and where are we heading?

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Where are we now?

Quality of life, health-related quality of life, and health status

- Health status, health-related quality of life and quality of life??
- Physical functioning, mental functioning, social relationships and environment
- Discrepancy between actual and desired function
- Patient reported vs. clinician reported

e.g., World Health Organization (1993).

QoL and CAD

- QoL is impaired in CAD patients

  (Katon, Gen Hosp Psychiatry, 2007; Mols et al, QoL Res, 2009)
- …improves substantially after intervention

  (Simoons et al., EHJ 2010; Hofer et al., EJCPR 2006; Lavie et al. Arch Int Med,2006)
- … is associated with demographic, psychological and clinical factors

  (e.g., Norris et al., Circ Cardiovasc Qual outcomes, 2008; Stafford et al., J Psychosom Res, 2007; Olson et al., Eur H J, 2003)

Physical QoL & adverse outcomes in CAD

Coronary artery disease								
Bosworth et al, 1999	[24]	SR-health‡	2885	M	3.5 y	OR 2.96	1.80-4.85	CAD, CABG, PCI. Quartiles
		DASI†		M		ns		
		SF36‡		M		ns		
Chocron et al, 2000	[17]	NHP†	209	M	3 y	ns		CABG
Curtis et al, 2002	[25]	SF36‡	1778	M	1 month	OR 1.61	1.04-2.49	CABG, per 10-point 1 SD decrement
Deaton et al, 1998	[26]	HSQ12‡	93	H	3 m	ns		CABG. Readmitted vs nonreadmitted patients
Dixon et al, 2001	[31]	MacNew†	945	M/H	12 m	OR 2.36	1.25-4.46	MI, CHF, IHD, angina. Low/ high tertiles.
Herlitz et al, 1998	[27]	NHP‡	1290	M	5 y	ns		CABG, 37 items
Ho et al, 2005	[14]	SF36‡	3160	M	6 m	OR 1.30	1.06-1.59	CABG, valve replacement. Per 10-point 1-SD decrement
Koch et al, 2007	[4]	DASI†	6305	M	8.6 y	HR 0.64	0.50-0.83	CABG, dichtotomized "ceiling value" vs rest
Lenzen et al, 2007	[28]	EQ-5D‡	3786	M	12 m	OR 2.41	1.47-3.94	CAD, MI, CABG, PCI. Dichotomized <60 and up
Lim et al, 1998	[32]	MacNew†	375	M/H	18 m	ns		MI, low vs high tertiles.
Mayer et al, 2003	[19]	SF36‡	123	M	18 m	ns		CABG, insufficient outcome events
Mozaffarian et al, 2003	[33]	SAQ†	8908	M	24 m	HR 2.48	1.81-3.39	Chronic CAD, lowest quartile
Pedersen et al, 2007	[6]	MacNew†	667	M/H	<6 m	HR 2.20	1.34-3.61	PCI
				M/H	6-24 m	ns		
Rumsfeld et al, 1999	[29]	SF36‡	2480	M	6 m	OR 1.39	1.11-1.77	CABG, per 10-point decrease
Spertus et al, 2002	[8]	SAQ†	4484	M	12 m	OR 4.00	2.40-7.20	Chronic CAD, Lowest quartile
				H		OR 1.80	0.90-3.60	
Westin et al, 2005	[30]	HRQoL†	349	M	10 y	RR 3.15	1.88-5.25	MI, CABG, PCI. Adjusted for sex and age only

Mommersteeg et al., Am H J 2008

Mental QoL & adverse outcomes in CAD

Coronary artery disease								
Bosworth et al, 1999	[24]	SF36‡	2885	M	3.5 y	ns		CAD, CABG, PCI. Quartiles
Chocron et al, 2000	[17]	NHP†	209	M	3 y	RR 1.02	1.01-1.03	CABG, energy subscale.
Curtis et al, 2002	[25]	SF36‡	1778	M	1 m	OR 0.64	0.43-0.95	CABG, per 10-point 1-SD decrement
Deaton et al, 1998	[26]	HSQ12‡	93	H	3 m	ns		CABG, readmitted vs nonreadmitted
Herlitz et al, 1998	[27]	NHP‡	1290	M	5 y	ns		CABG, 37 items
Ho et al, 2005	[14]	SF36‡	3160	M	6 m	OR 1.16	1.01-1.33	CABG, per 10-point 1-SD decrement
Lenzen et al, 2007	[28]	EQ-5D‡	3786	M	12 m	OR 2.31	1.48-3.59	CAD, MI, CABG, PCI. Anxiety/depression subscale. Dichotomized <60 and up
Lim et al, 1998	[32]	MacNew‡	375	M/H	18 m	ns		MI, emotional subscale. Low vs high tertiles
Mayer et al, 2003	[19]	SF36‡	123	M	18 m	ns		CABG, insufficient outcome events
Rumsfeld et al, 1999	[29]	SF36‡	2480	M	6 m	ns		CABG, per 10 point decrease
Westin et al, 2005	[30]	HRQoL†	349	M	10 y	RR 1.44	1.02-2.04	MI, CABG, PCI. Depression subscale. Adjusted for sex and age only

Mommersteeg et al., Am H J 2008

QoL and mortality

- Some patients are willing to trade survival time over a shorter life with better quality of life

  (Rector et al., J Card Fail, 1995; Tsevat et al., JAMA ,1998)

- Quality of life is important as an outcome!

Searching the ESC guidelines…

- Quality of life and CAD

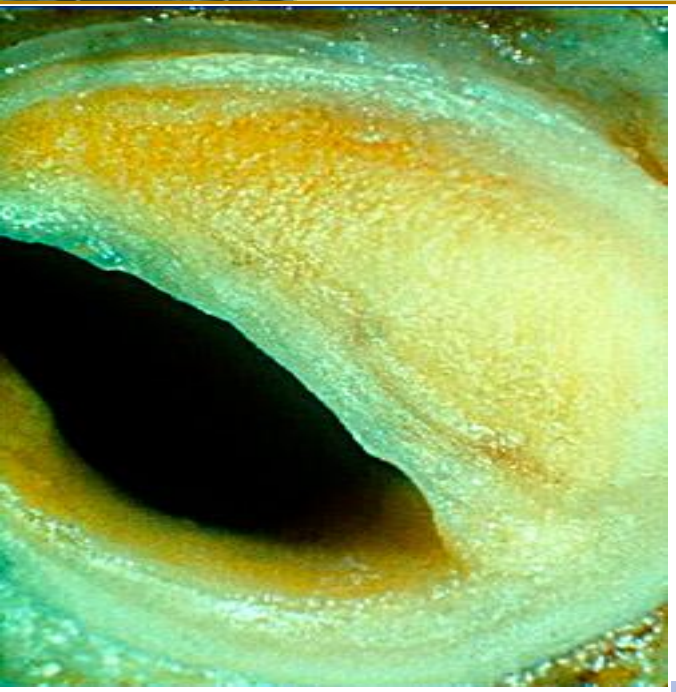
Very few hits!

Guidelines

	Guidelines
AMI	'**Anxiety** is almost inevitable, in both patients and their associates, so that …'
	'… to warn of the frequent occurrence of **depression** and **irritability** that more frequently occurs after return home. It must also be recognized that **denial** is common..'
CVD prevention	'assessment of **psychosocial risk factors** and relation of treatment to **quality of life**'
Angina	'Coronary arteriography should not be performed in patients with angina …in whom it will not improve **quality of life**.'
	'The goals of pharmacological treatment of stable angina pectoris are **to improve quality of life** by reducing the severity and/or frequency of symptoms and to improve the prognosis of the patient. Measures of quality of life *reflect disease severity and carry prognostic information* if properly assessed.'
	'Trial-based evidence indicates, however, that PCI is more often effective than medical treatment in reducing events that impair **quality of life** (angina pectoris, dyspnoea, and the need for re-hospitalisation or limitation of exercise capacity'

Where are we heading?

QoL and mortality



…or both?

Applications of QoL as an outcome

1. Outcomes in clinical trails
2. Routine clinical care
3. Disease management programs
4. Quality assessment and efficacy
5. Shared decision making

Outcomes in clinical trials

- Identify eligible patients - who benefits most?
- Improve interpretation and application of study results

Routine clinical care

- Patient vs. physician rated evaluation
- Risk stratification: patients at risk for mortality
- Cost-effectiveness
- Follow symptoms over time (consistency in rating)

Disease management programs

- Identify pts at highest risk for impaired health outcomes
- Evaluate patient's health benefits
- Compare effectiveness of DMPs

Quality assessment and safety

- Allow comparison between physicians, hospitals, etc. –> improvement and optimalization of care

- Bench-marking opportunities

Shared decision-making

- Development of prediction models
- Implementation in clinical care

QoL and mortality in CAD - summary

- CAD is associated with impaired QoL
- QoL is a determinant of poor prognosis, independent from clinical characteristics
- QoL is important in its own right as an outcome
- Implementation of QoL in guidelines & practice is warranted

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Conclusion

- Quality of Life ~~OR~~ mortality

- Quality of Life **AND** mortality

Questions?

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