

GIORNATE CARDIOLOGICHE TORINESI





Controversies in Preventative Cardiology

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Controversy #1 Aspirin vs no aspirin for primary prevention

- 65 yo non-diabetic man with obesity, no CVD with a 10-year CVD risk of 9%
- History of gastritis treated with omeprazol. No peptic ulcer. No history of GI bleeding



- States that aspirin causes bruises, not too worried about it
- Coronary calcium scan: 95% percentile



Would you:

a. Start low-dose aspirin for primary CVD prevention

b. No aspirin





Effect of Aspirin on Vascular and Nonvascular Outcomes

Outcome	Studies (no.)	Cases (no.)/ participants, aspirin	Cases (no.)/ participants, placebo		OR (95% CI)			
Nonfatal MI	9	699/52,145	841/50,476		0.80 (0.67-0.96)			
Fatal MI	9	329/52,145	263/50,476		1.06 (0.83-1.37)			
Total CHD	9	1,044/52,145	1,125/50,476		0.86 (0.74-1.01)			
Stroke	9	749/52,145	755/50,476		0.94 (0.84-1.06)			
Total CVD events	9	2,107/52,145	2,171/50,476		0.90 (0.85-0.96)			
CVD mortality	9	674/52,145	611/50,476		- 0.99 (0.85-1.15)			
Non-CVD mortality	9	1,276/52,145	1,311/50,476		0.92 (0.85-1.00)			
Cancer mortality	8	750/49,919	762/48,207		0.93 (0.84-1.03)			
Noncancer, nonvascular mortality	8	481/49,919	502/48,207		0.90 (0.76-1.07)			
All-cause mortality	9	1,962/52,145	1,933/50,476		0.94 (0.88-1.00)			
Total bleeds	9	22,297/50,868	18,415/49,208		—— 1.70 (1.17-2.46)			
Nontrivial bleeds	9	5,337/50,868	4,712/49,208		— 1.31 (1.14-1.50)			
-	0.5 1.0 1.5 2.0 2.5							
			Fa	Favors aspirin Favors placebo				

Seshasai et al: Arch Intern Med 172(3):209, 2012



Breaking News:

The Surprising **FDA Reversal on Aspirin**



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- ARRIVE High risk pts, no diabetes (Lancet)
- ASPREE Healthy people 70+ years (NEJM)

No benefit

• ASCEND Patients with diabetes (NEJM)

1% CV risk reduction1% increase risk in major bleeding



Take-Home Messages

- In most people, aspirin is not recommended for primary prevention of CVD
- Patients with diabetes and very low bleeding risk may benefit
- Patients with proven subclinical atherosclerotic disease and low bleeding risk may benefit



Controversy #2

Saturated fats are bad vs saturated fats are not bad





Question #1

- A. Saturated fats are bad
- B. Saturated fats are not bad
- C. Saturated fats are actually good





Saturated Fats

- Extensive epidemiologic studies before y2000
- Increased CVD risk





Association of Dietary, Circulating and Supplement Fatty Acids With Coronary Risk A Systematic Review and Meta-analysis, 2014

- 32 observational studies (512,420 participants) of fatty acids from dietary intake
- 17 observational studies (25,721 participants) of fatty acid biomarkers
- 27 randomized, controlled trials (105,085 participants) of fatty acid supplementation

Total fatty acid intake	Studies (no.)	Participants (no.)	Events (no.)	RR (95%) top vs bottom th	nirds RR (95% CI)
Saturated	20	276,763	10,155		1.03 (0.98-1.07)
Monounsaturated	9	144,219	6,031	~	1.00 (0.91-1.10)
ω - 3					
α -Linolenic	7	157,258	7,431		0.99 (0.86-1.14)
Total long-chain ω -3	16	422,786	9,089		0.87 (0.78-0.97)
ω-6	8	206,376	8,155		0.98 (0.90-1.06)
Trans	5	155,270	4,662		1.16 (1.06-1.27)
				0.75 1.00 1.25	1.50





Debriefing the Evidence

- Conclusion was: SatFats may not be harmful, trans fats are harmful
- Options
 - A. SatFats are truly not harmful, or
 - B. SatFats are harmful but studies cannot prove it
 - Dietary questionnaires
 - Low fat diets may not be healthy either
 - Evidence from animal experiments





Take-Home Messages

- Very strict restriction of saturated fats is not based on scientific evidence
- Excessive intake of saturated fats is probably harmful
- Eliminate or reduce intake of trans fats and processed meats





Controversy #3 Can LDL become "too low"?

- 67 yo woman with a STEMI a year ago. Type 2 DM, HTN. Past smoker
- On 80 mg atorvastatin. TC 2.3 mmol/l, normal triglycerides, HDL 1.06 mmol/l. LDL is 0.47 mmol/l mg/dL,
- Baseline LDL was 3.39 mmol/l before statins



What would you do?

- a. Stay with same dose of atorvastatin
- b. Lower the dose of atorvastatin
- c. Stop atorvastatin





Pros

- Total cholesterol and LDL-C relate to CVD events
- The lower the better, experts say
- Any subgroup analysis comparing low vs very low (1.8 mmol/l vs 1.6 mmol/l, >1.6 vs <1.6) show added clinical benefit
- Registry data and randomized trial data have shown no increased rates of adverse events when LDL <0.77 mmol/l



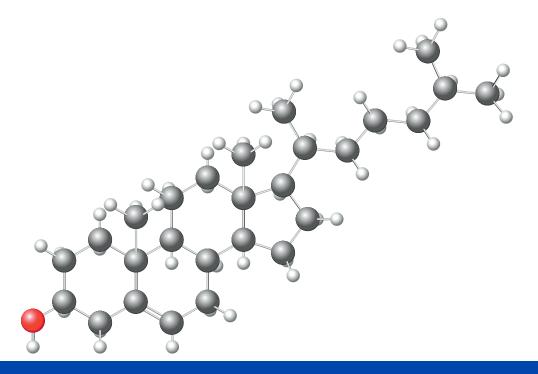
Cons

- Epidemiologic studies have shown increased mortality with very low LDL values
- Data from FOURIER may not apply to my patient
- What if we apply the concept of "the lower the better" to blood pressure and fasting glucose?
- Safety data on very low LDL is limited to short term follow-up



Take-Home Messages

- OK to think about residual risk, with caution
- Don't target very very levels of LDL
- Be cautious when LDL values get <1 mmol/I....







Gratzie! @DrLopezHeart

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