Low-density lipoprotein cholesterol targets: Lowest is best

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Abstract

Data from both observational studies and from large randomized controlled trials (RCT) with statins, as well as emerging data from RCTs with other lipid-lowering agents, show that achieving low-density lipoprotein cholesterol (LDL-C) levels considerably lower than the currently recommended is both safe and also results in further reductions in cardiovascular events. In fact, until now, a threshold of LDL-C levels where safety concerns arise and cardiovascular risk reduction disappears has not been identified. Therefore, current LDL-C targets might have to be further reduced, particularly in very high risk patients.

Key words: low-density lipoprotein cholesterol; targets; statins

Elevated low-density lipoprotein cholesterol (LDL-C) levels represent a major modifiable risk factor for cardiovascular disease, particularly coronary heart disease [1]. Accordingly, current guidelines state that LDL-C is the primary target in the management of dyslipidemias [2]. Moreover, LDL-C targets depend on cardiovascular risk; the higher the cardiovascular risk, the lower the LDL-C target [2]. This recommendation is based on the finding of randomized controlled trials (RCT) that showed that more aggressive lipid-lowering treatment, particularly with statins, reduces cardiovascular morbidity more than less aggressive treatment [3].

In recent years, accumulating data suggest that lowest is best for LDL-C levels in terms of reductions in cardiovascular events. Indeed, hunter-gatherer societies have very low total cholesterol (TC) levels.
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(continued)
In conclusion, data from both observational studies and from large RCTs with statins, as well as emerging data from RCTs with other lipid-lowering agents, show that achieving LDL-C levels considerably lower than the currently recommended is both safe and also results in further reductions in cardiovascular events. In fact, until now, a threshold of LDL-C levels where safety concerns arise and cardiovascular risk reduction disappears has not been identified. Therefore, current LDL-C targets might have to be further reduced, particularly in very high risk patients.

Conflict of Interest
All authors declare no conflict of interest.

Περίληψη

Στόχοι της LDL χοληστερόλης: τα ελάχιστα επίπεδα είναι τα καλύτερα

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Δ εδομένα τόσο από μελέτες παρατήρησης όσο και από μεγάλες τυχαιοποιημένες μελέτες με στατίνες, καθώς και αναδυόμενα στοιχεία από τυχαιοποιημένες μελέτες με άλλα υπολιπιδαιμικά φάρμακα, δείχνουν ότι η επίτευξη επιπέδων LDL χοληστερόλης σημαντικά χαμηλότερων από τις τρέχουσες συστάσεις είναι ασφαλής και συνεπάγεται περαιτέρω ελάττωση των καρδιαγγειακών συμβαμάτων. Πράγματι, μέχρι σήμερα δεν έχουν βρεθεί επιπέδα LDL χοληστερόλης κάτω από τα οποία αυξάνονται οι ανεπιθύμητες ενέργειες ή παίζει η ελάττωση του καρδιαγγειακού κινδύνου. Συνεπώς, οι τρέχοντες στόχοι της LDL χοληστερόλης θα πρέπει ενδεχομένως να μειωθούν περαιτέρω, ιδιαίτερα στους πολύ ψηλού κινδύνου ασθενείς.

Λέξεις ευρετηρίου: LDL χοληστερόλη, στόχοι, στατίνες

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References


