Supplementary material

Supplementary Material 1 Medline and Central search strategies

9 April 2020, 21:00

MEDLINE search strategy

via PubMed

#1

1. non-alcoholic fatty liver disease (17417)
2. NAFLD (20051)
3. fatty liver (79717)
4. hepatic steatosis (83085)
5. nonalcoholic steatohepatitis (19717)
6. 1 or 2 or 3 or 4 or 5 (84112)
7. left ventricular mass (22965)
8. left ventricular hypertrophy (31564)
9. echocardiography (178249)
10. ventricular dysfunction (69898)
11. 7 or 8 or 9 or 10 (244955)
12. 6 and 11 (**285**)

#2

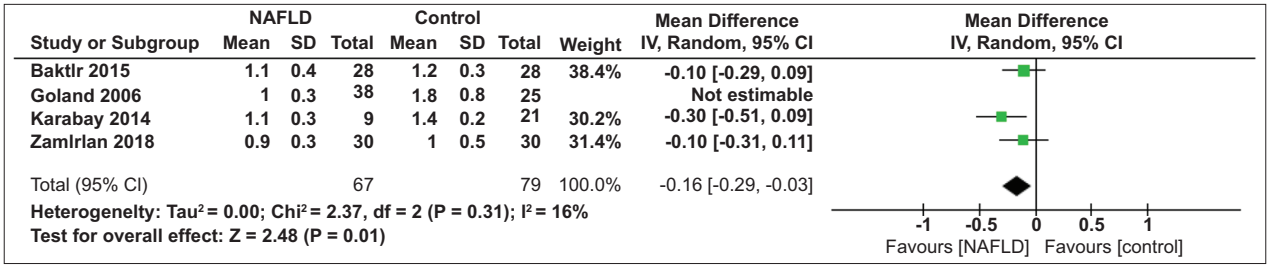
("Non-alcoholic Fatty Liver Disease"[Mesh]) AND "Hypertrophy, Left Ventricular"[Mesh] **(8)**

CENTRAL search strategy

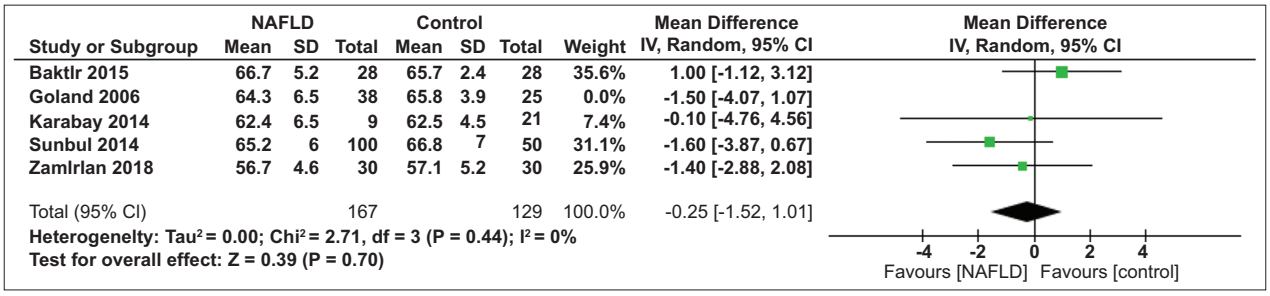
#1: Non-alcoholic Fatty Liver Disease:ti,ab,kw (Word variations have been searched) (**1635:** 9 Cochrane Reviews, 3 Cochrane Protocols, 1623 Trials)
#2: left ventricular:ti,ab,kw (Word variations have been searched) (**17339**: 31 Cochrane Reviews, 1 Cochrane Protocols, 17307 Trials,)
#3: #1 and #2 (**2**: 2Trials)

Supplementary Material 2 MOOSE checklist for meta-analyses of observational studies

#	MOOSE Checklist	Completed (Y/N/NA)	Pages
1	**Title:** Identify the study as a meta-analysis (or systematic review)	Y	1
2	**Abstract:** Use the journal's structured format	Y	4
3	**Introduction Present**: The clinical problem	Y	6
4	**Introduction Present:** The hypothesis	Y	7
5	**Introduction Present:** A statement of objectives that includes the study population, the condition of interest, the exposure or intervention, and the outcome(s) considered	Y	7
6	**Sources Describe:** Qualifications of searchers (e.g., librarians and investigators)	Y	8
7	**Sources Describe:** Search strategy, including time period included in the synthesis and keywords	Y	8
8	**Sources Describe:** Effort to include all available studies, including contact with authors	Y	7-8
9	**Sources Describe:** Databases and registries searched	Y	7-8
10	**Sources Describe:** Search software used, name and version, including special features used (e.g., explosion)	Y	8
11	**Sources Describe:** Use of hand searching (e.g., reference lists of obtained articles)	Y	8
12	**Sources Describe:** List of citations located and those excluded, including justification	Y	8
13	**Sources Describe:** Method of addressing articles published in languages other than English	Y	8
14	**Sources Describe:** Method of handling abstracts and unpublished studies	Y	8
15	**Sources Describe:** Description of any contact with authors	Y	7-8 No contacts. All documents were available online
16	**Study Selection Describe:** Types of study designs considered	Y	8
17	**Study Selection Describe:** Relevance or appropriateness of studies gathered for assessing the hypothesis to be tested	Y	8
18	**Study Selection Describe:** Rationale for the selection and coding of data (e.g., sound clinical principles or convenience)	Y	9
19	**Study Selection Describe:** Documentation of how data were classified and coded (e.g., multiple raters, blinding, and interrater reliability)	Y	9
20	**Study Selection Describe:** Assessment of confounding (e.g., comparability of cases and controls in studies where appropriate	Y	9
21	**Study Selection Describe:** Assessment of study quality, including blinding of quality assessors; stratification or regression on possible predictors of study results	Y	9
22	**Study Selection Describe:** Assessment of heterogeneity	Y	9
23	**Study Selection Describe:** Statistical methods (e.g., complete description of fixed or random effects models, justification of whether the chosen models account for predictors of study results, dose-response models, or cumulative meta-analysis) in sufficient detail to be replicated	Y	9
24	Results Present: A graph summarizing individual study estimates and the overall estimate	Y	10-11
25	**Results Present:** A Table giving descriptive information for each included study	Y	10
26	Results Present: Results of sensitivity testing (e.g., subgroup analysis)	NA	13
27	**Results Present:** Indication of statistical uncertainty of findings	Y	10-11
28	**Discussion Discuss:** Strengths and weaknesses	Y	12-13
29	**Discussion Discuss:** Potential biases in the review process (e.g., publication bias)	N	small number of studies
30	**Discussion Discuss:** Justification for exclusion (e.g., exclusion of non-English-language citations)	Y	9
31	**Discussion Discuss:** Assessment of quality of included studies	Y	9
32	**Discussion Discuss:** Consideration of alternative explanations for observed results	Y	12-13
33	**Discussion Discuss:** Generalization of the conclusions (i.e., appropriate for the data presented and within the domain of the literature review)	Y	13
34	**Discussion Discuss**: Guidelines for future research	Y	13-14
35	**Discussion Discuss**: Disclosure of funding source	Y	2



Supplementary Material 3 Forest plot summarizing the 3 studies (without Goland *et al* [17]) with respect to the difference in E/A ratio between NAFLD patients and controls (mean difference -0.16, confidence interval [CI] -0.29 to -0.03, I^2=16%)
E/A ratio, ratio between diastolic early- and late-diastolic mitral inflow velocities; NAFLD, nonalcoholic fatty liver disease; SD, standard deviation



Supplementary Material 4 Forest plot summarizing the 4 studies (without Goland *et al*) with respect to the difference in left ventricular ejection fraction between NAFLD patients and controls (mean difference -0.25, confidence interval [CI] = -1.52 to 1.01, I^2=0%)
NAFLD, nonalcoholic fatty liver disease; SD, standard deviation