

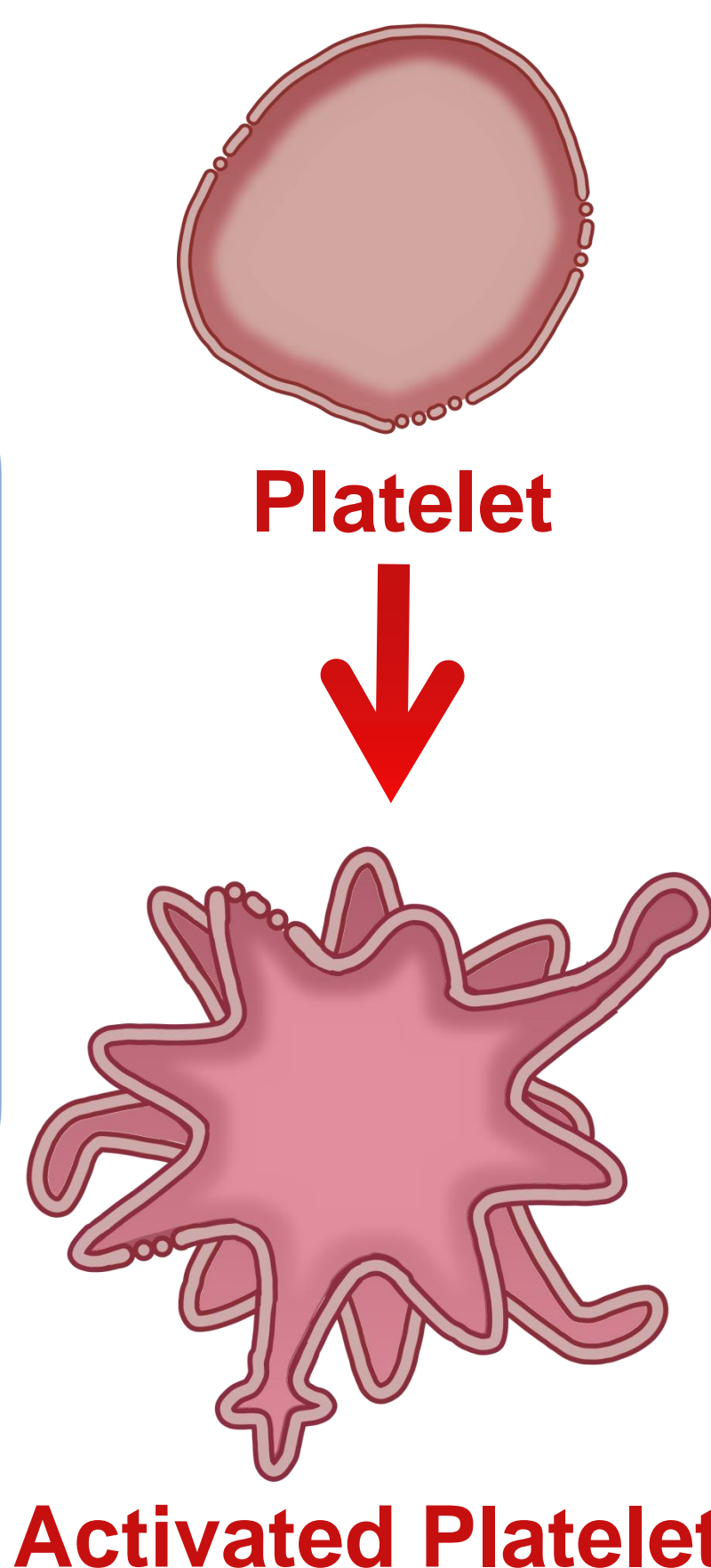


Potential inflammatory biomarkers for tinnitus in platelets and leukocytes: a critical scoping review and meta-analysis

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Aims and Objectives:

- To explore the association between platelets or leukocytes and tinnitus.
- Whether any association exists between platelets or leukocytes and tinnitus and;
- How any otological characteristics define this association.

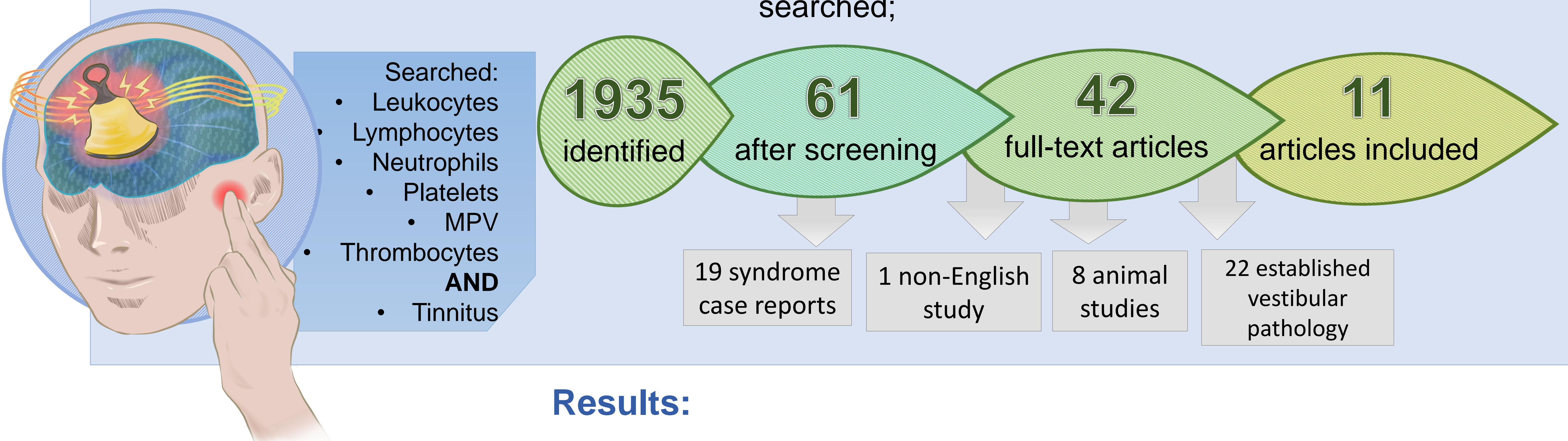


Background

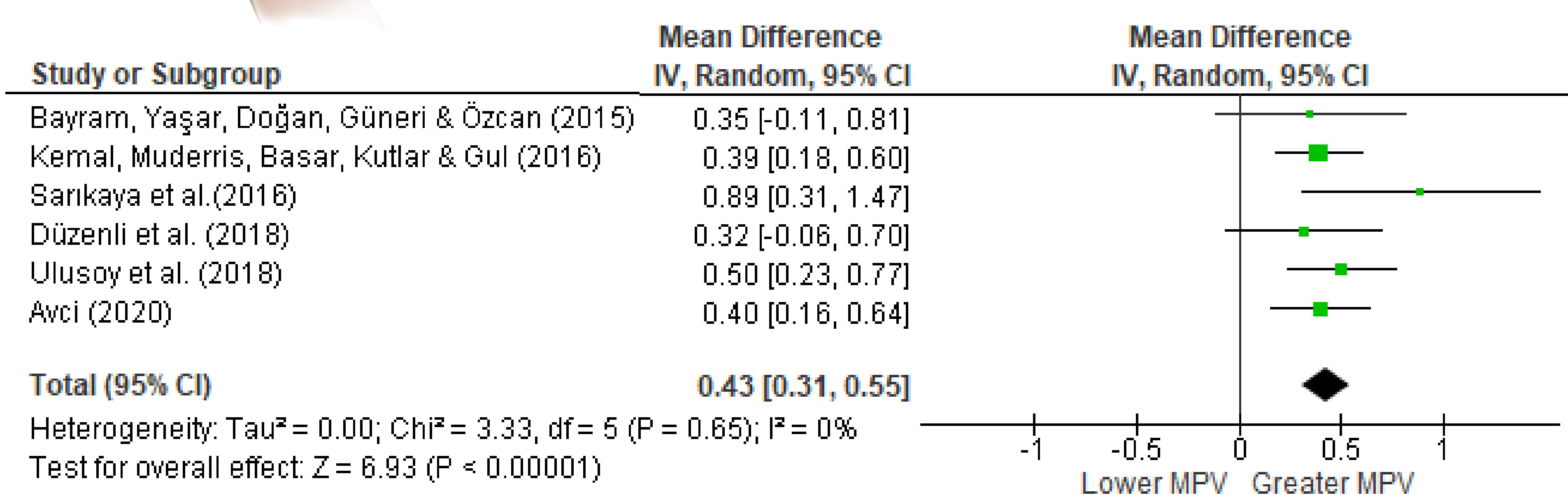
- Platelets, leukocytes and cytokines are involved in inflammation and neuroinflammation;
- The aetiology of tinnitus remains unknown;
- Biomarkers would help categorise tinnitus and elucidate a possible neuroinflammatory model of tinnitus

Search Strategy

MEDLINE, CINAHL, Web of Science Core Collection, SCOPUS, PubMed and reference lists were searched;



Results:



Conclusions:

- Mean platelet volume is increased in individuals with tinnitus;
- There is no consensus in the literature on a link between leukocytes and tinnitus.

Figure 1: Random-effects pooled mean difference of MPV between a tinnitus group and age and sex matched controls

Recommendations:



Stress questionnaires as part of a multivariate analysis in future studies may help differentiate between tinnitus related and stress related haematological changes



Blood sampling and haemogram methodology need to be standardised



Further studies reproducing the current findings in different populations.