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

Raheel Ahmed, Alice Shadis & Rumana Ahmed

Aims and Objectives:

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

Results:

1935 identified after screening
61 full-text articles
42 articles included
19 syndrome case reports
1 non-English study
8 animal studies
22 established vestibular pathology

Conclusions:

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

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.

Correspondence:
e-mail: Raheel.Ahmed2@nhs.net