

ratio (OR) for binary outcomes, with 95% confidence intervals (CI). Review manager was used to perform all statistical analyses. **Results:** Three RCTs were included, comprising 883 patients, of whom 49.1% were treated with TRT. The mean age of the participants was 66.63 years. TRT demonstrated a significant improvement in hemoglobin (Hb) levels within six months compared to placebo (MD 0.62 g/dL; 95% CI 0.28 to 0.96; $p < 0.01$). Additionally, TRT significantly corrected anemia at 12 months compared to control (OR 1.81; 95% CI 1.36 to 2.41; $p < 0.01$) and was associated with a greater proportion of patients whose Hb concentration improved by 1.0 g/dL or more from baseline (OR 3.22; 95% CI 1.28 to 8.09; $p = 0.01$). **Discussion:** Anemia, a common condition among older adults, is associated with significant morbidities such as fatigue, falls, increased hospitalization, and higher mortality rates. Approximately 10% of individuals aged 65 years or older have anemia; this prevalence increases to 15% among elderly men with hypogonadism. Although mild normocytic anemia is the most common type within this patient group, about one-third of these cases are classified as unexplained anemia, a multifactorial condition in which androgen deficiency may play a role. Different studies have demonstrated the correction of anemia with TRT across various types, including normocytic, unexplained, and macrocytic anemia. This supports the belief that TRT increases Hb levels through several mechanisms: it stimulates erythropoietin transcription, enhances iron availability by suppressing hepcidin, and improves red blood cell survival. Our results demonstrated that TRT significantly increased Hb levels and corrected anemia in hypogonadal men. It markedly improved the likelihood of achieving a clinically relevant Hb increase of 1.0 g/dL or more, an effect comparable to that of other erythropoiesis-stimulating agents and inhibitors of hypoxia-inducible factors. This finding underscores the potential of TRT as an effective treatment for anemia in elderly men with hypogonadism. **Conclusion:** In elderly men with hypogonadism and anemia, testosterone replacement was more effective than placebo in correcting anemia. Therefore, it could be considered a viable treatment option for these patients.

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IMPACT OF LOW-DOSE ASPIRIN ON THE PREVALENCE OF ANAEMIA IN ELDERLY PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Purpose: Aspirin is largely used for primary and secondary prevention of cardiovascular disease. Although the adverse effect of acute bleeding has been thoroughly analyzed, the potential effect of aspirin on the prevalence of anemia is still unclear, especially in senior individuals. We aimed to investigate the effect of low-dose aspirin on anemia events, hemoglobin concentration, and other haematologic parameters in the elderly by conducting a meta-analysis of randomized and observational trials. **Methods:** We systematically searched PubMed, Embase, and Cochrane Central databases for studies comparing the hematological parameters and the prevalence of anemia between low-dose aspirin (≤ 325 mg) and non-aspirin users in individuals aged 60 years or older. We pooled mean differences (MD) for continuous outcomes and odds ratio (OR) for binary outcomes, with 95% confidence intervals (CI), under a random-effects model for both. **Results:** We included seven studies, consisting of three randomized controlled trials (RCTs), two cross-sectional, and two retrospective cohorts. The pooled data provided a total of 19,792 participants, of whom 9,771 (49.3%) were treated with aspirin; 55.4% were women and 44% had a history of smoking. There was no significant difference in the prevalence of anemia between aspirin users and non-aspirin users (OR 0.85; 95% CI 0.52 to 1.38; $p = 0.50$). Additionally, there was no significant difference in Mean Corpuscular Haemoglobin (MD 0.06 pg; 95% CI -0.37 to 0.49; $p = 0.79$), Mean Corpuscular Volume (MD -0.31 fL; 95% CI -1.17 to 0.56; $p = 0.49$), and hemoglobin concentration (MD -0.02 g/dL; 95% CI -0.26 to 0.21; $p = 0.85$) between the two groups. However, the mean change in hemoglobin concentration between baseline and follow-up was higher in the aspirin group when compared to non-aspirin users (MD -0.11 g/dL; 95% CI -0.17 to -0.05; $p = 0.0002$; $I^2 = 0\%$). **Discussion:** Our study, the first quantitative meta-analysis on this topic in a decade, utilizes rigorous methodology and a substantial patient cohort. Findings suggest that while low-dose aspirin does not increase anemia prevalence, it is associated with declining hemoglobin levels over time, likely due to minor or occult bleeding. Previous studies support this by showing increased fecal blood loss in aspirin users. Limitations include diverse study designs, short follow-up durations, gender-specific anemia criteria, and insufficient data on ferritin and iron levels. **Conclusion:** In summary, low-dose aspirin was not associated with an increased prevalence of anemia. However, there was a meaningful correlation between aspirin intake and declining hemoglobin levels over time.

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ANEMIA FERROPRIVA GESTACIONAL: IMPACTOS MATERNO-FETAIS E ESTRATÉGIAS DE PREVENÇÃO

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Introdução: A anemia gestacional é definida como a condição na qual os níveis de hemoglobina estão abaixo de 11 g/dL no