Debunked: Steroid Risk in Systemic Sclerosis

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Systemic sclerosis (SSc) is an autoimmune disease with multiple organ involvement, including lung, skin, gastrointestinal tract, and kidneys. A subset of SSc patients develops a critical renal condition, scleroderma renal crisis (SRC), which is associated with poor mortality and morbidity. In the late 20th century, there were several case reports that use of glucocorticoids is associated with increased risk of SRC. However, whether glucocorticoids increase the risk of SRC is still unclear due to the conflicting results from subsequent retrospective cohort studies. As such, the aim of this study was to elucidate the association between SRC and use of glucocorticoids in SSc. A systematic review was conducted using three search strategies, Cochrane Central Register of Controlled Trials (Central), Embase, and Medline, followed by meta-analysis using the selected studies. As a result of the systematic review process, six manuscripts were included in the meta-analysis. The meta-analysis revealed that there is no evidence that use of glucocorticoids is associated with SRC in patients with SSc. This result suggests that use of glucocorticoids can be safe in patients with SRC in terms of risk of developing SRC. However, the exact causal relationship should be further evaluated in double-blinded clinical trials in the future. The effect of different dosages of glucocorticoids on the onset of SRC should also be evaluated in the future.