

The explain double-  
blinding in more  
details, and how



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The authors of this article suggested the overcome of zinc deficiency can contribute to reducing the infection frequency and hospitalization due to severe sick cell crisis of SCD patients. The experiment was conducted in randomized controlled trial (RCT) method.

Total of 32 participated adult patients (19- to 49-year-old) with SCD were divided into three groups. Group A and Group B patients were deficient in zinc level, while Group C patients were sufficient as the control group. During the 4 years of experiment, group A and B were observed for 1 year. Then group A was given zinc acetate and intake daily for 3 years; while group B took placebo for the first one year, then took zinc acetate on a daily basis for 2 years.

Participants' physiological statuses were tightly monitored in order to evaluate different outcomes and they were also given copper orally to avoid side-effect associated with long-term zinc supplementation. Clinical staff in these procedures were blinded. The conclusion resulted robustly supported the initial proposal. As the measurements indicated, there was a significant increase in plasma zinc concentration for patients took supplements, compared to those who took placebos. Also, as expected, the significant decreases in the frequency of pain crisis, hospital admission, and infection were also found when comparing group A and B with the control group.

This conclusion undoubtedly confirms researchers' assumption and address the importance of zinc in SCD patients. Yet, this trial might also have exposed under risk of bias. For instance, the participants were just instructed

and took supplements themselves. It could be hard to tell whether they followed the instruction or not. Furthermore, the article did not explain double-blinding in more details, and how the SCD patients were selected. All of these minor defects might compromise the accuracy and potency of the conclusion.