

## **Serum Copper and Zinc Concentrations in Patients with Acute Brucellosis**

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### **Abstract**

**Purpose:** Altered serum concentrations of Zinc (Zn) and Copper (Cu) has been defined in infectious and inflammatory diseases. The aim of this study was to evaluate serum Zn and Cu concentration and Cu/Zn ratio status in patients with brucellosis compared with healthy individuals.

**Materials and methods:** Serum Zn and Cu level of 36 patients with brucellosis (28 men and 8 women) were compared with those of 36 matched healthy controls. Serum micronutrient concentrations were measured by automatic absorption spectrophotometry.

**Results:** Serum Zn concentration was lower in patients with brucellosis than that of healthy individuals [(86.21 ± 31.99) µg/dL and (133.02 ± 85.66) µg/dL, respectively, P = 0.003]. Mean serum Cu concentration was significantly higher in subjects with brucellosis when compared with that of healthy controls [(249.92 ± 104.59) µg/dL and (89.0 ± 27.76) µg/dL, respectively, P < 0.001]. Copper/Zinc ratio was found to be significantly higher in patients with brucellosis than that of healthy individuals [(3.16 ± 1.58) and (0.83 ± 0.41), respectively, P < 0.001].

**Conclusion:** Serum Zn and Cu concentrations and Cu/Zn ratio later in patients with brucellosis during the period of infection. Further studies are needed to determine whether these micronutrients have an effect on disease severity and outcome.

Key words : [Acute Brucellosis](#)    [Zinc](#)    [Copper](#)