

## Research Article

# Assessment Serum Zinc Level in Pregnancy with Covid-19 Compare with Normal Pregnancy

*Penilaian Kadar Seng Serum pada Kehamilan dengan Covid-19 Dibandingkan dengan Kehamilan Normal*

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### **Abstract**

**Objective:** The objective of this study was to assess serum zinc levels in pregnancy with COVID-19 compared with normal pregnancy.

**Methods:** The sampling method used was consecutive sampling. All subjects enrolled must meet eligibility inclusion and exclusion criteria with signed informed consent. The study was conducted from March 2021 to June 2021 in Manado. Pregnant women with COVID-19 and normal pregnant women serum zinc levels were measured.

**Results:** Sixteen pregnant patients with COVID-19 and 16 normal pregnant patients' serum zinc levels were measured. All pregnant women with COVID-19 have low serum zinc levels (100%), whereas in the normal pregnancy group only 8 subjects (50%) have low serum zinc levels and 8 subjects (50%) have normal serum zinc levels. In the pregnancy with COVID-19 group, the mean $\pm$ SD value was  $40.75\pm10.440$ , whereas in the normal pregnancy group the mean $\pm$ SD value was  $60.25\pm17.407$ . The analysis using an independent T-test shows a significant difference in serum zinc levels between pregnancies with COVID-19 and normal pregnancies ( $p=0.001$ ).

**Conclusion:** There is a significant difference in serum zinc levels in pregnancies with COVID-19 and normal pregnancies.

**Keywords:** COVID-19, pregnancy with COVID-19, zinc in pregnancy.

### **Abstrak**

**Tujuan:** Untuk mengetahui kadar seng pada kehamilan dengan COVID-19 dibandingkan pada kehamilan normal.

**Metode:** Pengambilan sampel metode consecutive sampling setiap subjek yang sesuai dengan kriteria inklusi dan eksklusi penelitian dan telah menandatangani surat persetujuan. Penelitian dilakukan bulan Maret 2021 sampai Juni 2021 di Manado. Dilakukan pemeriksaan kadar seng dalam serum pasien hamil dengan COVID-19 dan pasien hamil normal.

**Hasil:** Enam belas pasien hamil dengan COVID-19 dan 16 pasien hamil normal dilakukan pemeriksaan kadar seng. Kelompok kehamilan dengan COVID-19, semuanya memiliki kadar seng rendah (100%). Sedangkan pada kehamilan normal kelompok kadar zinc rendah sebanyak 8 orang (50%) dan kadar seng normal sebanyak 8 orang (50%). Pada kelompok kehamilan dengan COVID-19 didapatkan nilai mean $\pm$ SD sebesar  $40,75\pm10,440$ , sedangkan pada kelompok kehamilan normal nilai mean $\pm$ SD sebesar  $60,25\pm17,407$ . Pada analisis uji beda independen menunjukkan bahwa terdapat perbedaan bermakna kadar zinc pada kehamilan dengan COVID-19 dan kehamilan normal ( $p=0.001$ ).

**Kesimpulan:** Terdapat perbedaan bermakna kadar seng pada kehamilan dengan COVID-19 dan kehamilan normal

**Kata kunci :** COVID-19, kehamilan dengan COVID-19, seng pada kehamilan