

## Pengaruh pemberian ekstrak ophiocephalus striatus terhadap kadar Igf-1 dan albumin pasien usia lanjut dengan malnutrisi. = The Effect of ophiocephalus striatus extract on levels of Igf 1 and albumin in elderly malnourished patients

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### Abstrak

**ABSTRAK**  
Latar Belakang. Ophiocephalus striatus berpotensi meningkatkan kadar IGF-1 dan albumin karena mengandung asam amino, asam lemak, vitamin, dan mineral. Belum ada penelitian menggunakan ekstrak Ophiocephalus striatus khusus pada pasien usia lanjut dengan malnutrisi. Tujuan. Mengetahui pengaruh pemberian ekstrak Ophiocephalus striatus terhadap kadar IGF-1 dan albumin pasien usia lanjut dengan malnutrisi. Metode. Uji klinis acak tersamar ganda dilakukan pada pasien rawat inap yang telah melewati kondisi akut dan dibolehkan pulang, berusia  $\geq 60$  tahun dengan skor Mini Nutritional Assessment  $\leq 23,5$  dan kadar albumin  $< 3,5$  g/dL. Dilakukan randomisasi untuk mendapatkan ekstrak Ophiocephalus striatus 10 gram sehari atau plasebo selama 14 hari. Kadar IGF-1 dan albumin diperiksa sebelum dan sesudah perlakuan. Pengaruh pemberian ekstrak OS dianalisis menggunakan uji t tidak berpasangan atau uji Mann-Whitney. Hasil. Randomisasi dilakukan terhadap 109 subjek, sebanyak 90 subjek menyelesaikan penelitian hingga 14 hari masing-masing kelompok 45 orang. Median usia 64;75 tahun dengan perbandingan laki-laki dan perempuan 2 : 3. Didapatkan perubahan kadar IGF-1 dan albumin sesudah perlakuan pada kelompok ekstrak OS vs plasebo berturut-turut 14,70 0,30;31,50 ng/mL vs 1,00 - 6;13,15 ng/mL  $p = 0,002$  dan 0,50 0,15;0,70 g/dL vs 0,10 0,0;0,50 g/dL  $p = 0,003$ . Simpulan. Ekstrak Ophiocephalus striatus dapat meningkatkan kadar IGF-1 dan albumin pasien usia lanjut dengan malnutrisi

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### **ABSTRACT**

Background. Supplementation with Ophiocephalus striatus is potential to increase IGF 1 and albumin levels in elderly malnourished patients because of the contents of amino acids, fatty acids, vitamins, and minerals. Objective. This study was conducted to confirm the effect of Ophiocephalus striatus extract on levels of IGF 1 and albumin in elderly malnourished patients. Method. The study design is a double blind randomized controlled trial involving hospitalized malnourished  $\geq 60$  years old patients in acute ward before discharged, with Mini Nutritional Assessment score  $\leq 23.5$  and albumin level  $< 3.5$  g dL. A total of 109 subjects were randomly divided into two groups including one group received Ophiocephalus striatus extract 10 g per day and another group received plasebo for 14 days. Albumin and IGF 1 levels were obtained before and after intervention. Results. Ninety subjects completed the study extract group 45 subjects plasebo group 45 subjects for 14 days. Median of age was 64 75 years, with male to female ratio were 2 3. The delta differences of IGF 1 and albumin levels between extract group and placebo group were 14.7 0.30 31.5 ng mL vs 1.00 6 13.15 ng mL  $p 0.002$  and 0.50 0.15 0.70 g dL vs 0.10 0,0 0.50 g dL  $p 0.003$ , respectively. There were significant differences between extract and placebo group. Conclusions. Supplementation with Ophiocephalus striatus extract was associated with a significant increase in IGF 1 and albumin levels.