

## ABSTRAK

### PERUBAHAN MASSA OTOT PASKA STROKE PADA PASIEN GERIATRI

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**Latar belakang:** Pasien geriatri dengan stroke rentan mengalami penurunan massa otot. Pemberian asupan energi dan protein yang optimal selama fase akut dapat mencegah penurunan massa otot paska stroke. Penelitian ini bertujuan untuk menganalisis hubungan asupan energi dan protein terhadap perubahan massa otot pasca stroke pada pasien geriatri.

**Metode penelitian:** Kohort prospektif terhadap 44 pasien geriatri stroke. Rerata asupan energi dan protein harian dan per kgBB dihitung setiap hari selama 7 hari. Massa otot diukur dengan perubahan lingkaran betis pada sisi paresis dan non paresis di awal dan akhir pemeriksaan.

**Hasil :** Subyek terdiri dari 26 laki-laki dan 18 perempuan (rerata usia 64 tahun). Asupan energi harian  $1473 \pm 200$  kkal dan protein harian  $53,4 \pm 11,7$  gram. Penurunan delta lingkaran betis sisi paresis  $1,7 \pm 0,5$  cm dan sisi non paresis  $0,7 \pm 0,5$ . Asupan protein harian berhubungan negatif dengan delta lingkaran betis paresis ( $p < 0,001$ ,  $r = -0,51$ ), asupan protein per kgBB berhubungan negatif dengan delta lingkaran betis paresis ( $p < 0,001$ ,  $r = -0,84$ ), asupan energi per kgBB berhubungan negatif dengan delta lingkaran betis paresis ( $p = 0,02$ ,  $r = -0,36$ )

**Simpulan:** Asupan protein harian dan per kgBB berhubungan negatif dengan delta lingkaran betis sisi paresis pada pasien geriatri dengan stroke.

**Kata kunci :** geriatri, stroke, asupan, massa otot

## **ABSTRACT**

### **POST STROKE MUSCLE MASS CHANGES IN GERIATRIC PATIENTS**

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**Background:** Geriatric patients with stroke are susceptible to decreased muscle mass. Providing optimal energy and protein intake during the acute phase can prevent a decrease in muscle mass after stroke. This study aims to analyze the relationship between energy and protein intake on changes in muscle mass after stroke in geriatric patients.

**Research method:** Prospective cohort of 44 geriatric stroke patients. Average daily energy and protein intake and per kgBW were calculated every day for 7 days. Muscle mass was measured by changes in calf circumference on the paretic and non-paretic sides at the beginning and end of the examination.

**Results:** Subjects consisted of 26 men and 18 women (mean age 64 years). Daily energy intake is  $1473 \pm 200$  kcal and daily protein is  $53.4 \pm 11.7$  grams. The decrease in delta calf circumference on the paretic side was  $1.7 \pm 0.5$  cm and on the non-paretic side  $0.7 \pm 0.5$ . Daily protein intake was negatively related to delta paretic calf circumference ( $p < 0.001$ ,  $r = -0.51$ ), protein intake per kgBW was negatively related to delta paretic calf circumference ( $p < 0.001$ ,  $r = -0.84$ ), energy intake per kgBW was negatively related to delta paretic calf circumference ( $p = 0.02$ ,  $r = -0.36$ ).

**Conclusion:** Daily protein intake and per kgBW were negatively related to delta paretic calf circumference in geriatric patients with stroke.

**Keywords:** geriatric, stroke, intake, muscle mass