

研究業績 英文表記

和文	
表題	日本人閉経後女性における生体電気インピーダンス分析による脂肪量と定量的超音波検査による骨量と握力および血清 25-ヒドロキシビタミン D との関連：雲仙スタディ
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英文	
Title	Association between fat mass by bioelectrical impedance analysis and bone mass by quantitative ultrasound in relation to grip strength and serum 25-hydroxyvitamin D in postmenopausal Japanese women: the Unzen
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Abstract	<p>Background: Whether fat mass or lean mass affects bone mass in postmenopausal women is controversial. This study aimed to explore the association between body composition measured by bioelectrical impedance analysis (BIA) and bone mass measured by quantitative ultrasound (QUS) in postmenopausal women in Japan.</p> <p>Methods: We conducted a cross-sectional study, The Unzen Study, on 382 community-dwelling postmenopausal Japanese women (mean (standard deviation) age: 68.2 (7.2) years) who participated in periodic health examinations. The stiffness index (SI) was measured using QUS, and body composition (e.g., fat mass and muscle mass) was measured using BIA. Grip strength was measured. Fasting blood samples were collected, and 25-hydroxyvitamin D (25(OH) D), tartrate-resistant acid phosphatase-5b (TRACP-5b), and parathyroid hormone (PTH) levels were measured. Data on current smoking, alcohol consumption, exercise, and any comorbidities (heart disease, lung disease, stroke, or diabetes mellitus) were collected.</p> <p>Results: The SI increased with increasing quartiles of fat mass and muscle mass (both p for trend < 0.001), respectively. There were positive correlations between SI and log (25(OH)D) or grip strength. Fat mass significantly correlated with grip strength. Multiple linear regression analysis showed that higher fat mass was independently and significantly associated with higher SI after adjusting for age, height, comorbidity, current smoking, alcohol consumption, exercise, log (25(OH)D), log (TRACP-5b), log (PTH), and grip strength (p = 0.001). In contrast, no association was observed between muscle mass and SI.</p> <p>Conclusions: Fat mass, but not muscle mass, was a significant determinant of SI in community-dwelling postmenopausal Japanese women.</p>
keyword	Body composition, Fat mass, Muscle mass, Bone mass, Stifness index, Postmenopausal women

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