

ABSTRACT

Background : *Knee osteoarthritis is a disease in which all structures of the knee joint have undergone pathological changes, namely loss of hyaline articular cartilage, followed by increased thickness and sclerosis of the subchondral bone plate, osteophyte growth at the joint border, stretching of the articular capsule, and mild synovitis. To assess its severity, Kellgren-Lawrence Scoring is used which is divided into 4 degrees of severity. One of the risk factors for knee osteoarthritis is body mass index. The overweight and obese categories have a high risk. This has a negative impact on health and can reduce quality of life. The purpose of this study was to determine the relationship between body mass index and severity of knee osteoarthritis in elderly patients at Jambi City Hospital.*

Methods : *This research method is observational analytic with a cross-sectional approach. The sampling technique used purposive sampling. A total of 115 patient medical record data were involved in this study. Data were obtained through calculating body weight, height, and taking radiology images. Statistical tests used the Pearson-Correlation test.*

Results : *Of the 115 samples, 35 people were underweight and normal (30.4%) and 80 people were overweight and obese (69.6%). A total of 39 people have Low-Grade OA (33.9%) and 76 people have High-Grade OA (66.1%). Statistical test results obtained $p\text{-value} = 0.000$ ($p\text{-value} < 0.05$).*

Conclusion : *There is a relationship between body mass index and knee osteoarthritis severity where the higher the body mass index, the greater the risk of having a high degree of severity.*

Keywords : *Knee osteoarthritis, body mass index, severity.*

ABSTRAK

Latar Belakang : Osteoarthritis lutut adalah penyakit di mana semua struktur sendi lutut telah mengalami perubahan patologis, yakni kehilangan hialin tulang rawan artikular, diikuti dengan peningkatan ketebalan dan sklerosis lempeng tulang subkondral, pertumbuhan osteofit pada batas sendi, peregangan kapsul artikular, dan sinovitis ringan. Untuk menilai keparahannya, digunakan *Kellgren-Lawrence Scoring* yang dibagi menjadi 4 derajat keparahan. Salah satu faktor risiko osteoarthritis lutut adalah indeks massa tubuh. Kategori overweight dan obesitas memiliki risiko yang tinggi. Hal ini berdampak buruk pada kesehatan dan dapat menurunkan kualitas hidup. Tujuan penelitian ini untuk mengetahui hubungan indeks massa tubuh dengan derajat keparahan osteoarthritis lutut pada pasien lansia di RSUD Kota Jambi.

Metode : Metode penelitian ini adalah analitik observasional dengan pendekatan *cross-sectional*. Teknik pengambilan sampel menggunakan *purposive sampling*. Sebanyak 115 data rekam medis pasien terlibat dalam penelitian ini. Data didapatkan melalui penghitungan berat badan, tinggi badan, dan pengambilan gambaran radiologi. Uji statistik menggunakan uji *Pearson-Correlation*.

Hasil : Dari 115 sampel didapatkan sebanyak 35 orang yang memiliki berat badan kurang dan normal (30,4%) dan 80 orang lainnya *overweight* dan obesitas (69,6%). Sebanyak 39 orang memiliki *Low-Grade* OA (33,9%) dan 76 orang memiliki *High-Grade* OA (66,1%). Hasil uji statistik didapatkan $p\text{-value} = 0,000$ ($p\text{-value} < 0,05$).

Kesimpulan : Ada hubungan antara indeks massa tubuh dengan derajat keparahan osteoarthritis lutut dimana semakin tinggi indeks massa tubuh maka risiko memiliki derajat keparahan yang tinggi juga besar.

Kata Kunci : Osteoarthritis lutut, indeks massa tubuh, derajat keparahan