Pengaruh pemberian Aphanizomenon Flos Aquae (AFA) terhadap perbaikan klinis osteoartritis lutut pada lanjut usia berdasarkan indeks Western Ontario and McMaster Universities Osteoarthritis (WOMAC) : Uji klinis acak tersamar ganda = The effect of Aphanizomenon Flos Aquae (AFA) on clinical improvement of knee osteoarthritis in older adult patients based on Western Ontario and McMaster Universities Osteoarthritis (WOMAC) index : A randomized double blind controlled trial

Lazuardhi Dwipa, author

Abstrak

ABSTRAK
Latar Belakang : Aphanizomenon Flos Aquae merupakan suatu spesies ganggang biru-hijau yang dimanfaatkan sebagai suplemen nutrisi di seluruh dunia termasuk di Indonesia dan diketahui memiliki banyak aktivitas biologis bermanfaat seperti efek anti-inflamasi, anti-oksidan dan analgetik. Osteoartritis (OA) lutut merupakan permasalahan yang cukup sering didapatkan pada lanjut usia (lansia) namun sampai saat ini belum tersedia modalitas farmakologik sebagai terapi ajuvan yang sesuai dan aman pada kelompok lansia. Aphanizomenon Flos Aquae dapat menjadi alternatif yang baik sebagai terapi ajuvan dalam tatalaksana pasien lansia dengan OA lutut.
Tujuan Penelitian : Mengkaji pengaruh AFA terhadap perbaikan klinis OA lutut pada lansia berdasarkan indeks WOMAC.
Metode : Dilakukan uji klinis acak tersamar ganda mulai November 2014 hingga Mei 2015 terhadap pasien lanjut usia dengan OA lutut di poliklinik Geriatri dan Reumatologi di RSUP Hasan Sadikin Bandung. Subjek dibagi menjadi 2 kelompok yaitu satu kelompok mendapat kapsul berisi AFA 2 kali 2 kapsul (1,28 g/hari) dan kelompok lainnya mendapat plasebo selama 60 hari. Skor Indeks WOMAC dinilai pada hari ke-1 dan hari ke-60 untuk menilai luaran klinis pasien OA. Perbedaan skor indeks WOMAC pada akhir penelitian dianalisis dengan uji Mann-Whitney.
Hasil : Dari total 254 subjek didapatkan 98 subjek yang memenuhi kriteria awal penelitian dan kemudian dilakukan randomisasi menjadi kelompok perlakuan dan plasebo, masing-masing terdiri dari 49 subjek. Kedua kelompok sebanding pada seluruh faktor prognostik penting. Setelah analisis, skor indeks WOMAC komposit kelompok AFA berbeda secara bermakna ($p<0,001$) dibanding plasebo pada akhir penelitian dengan masing-masing skor 8 (median,RIK 3-18) vs. 18 (median,RIK 8-32). Tidak ditemukan adanya efek samping yang serius selama penelitian.
Simpulan : Aphanizomenon Flos Aquae dapat memperbaiki klinis berdasarkan

skor indeks WOMAC serta aman diberikan pada pasien lansia dengan OA lutut.
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ABSTRACT
Background: Aphanizomenon Flos Aquae is a species of blue-green algae which
is commonly used as nutritional supplement in the world, including in Indonesia
and is known to have many beneficial biological activities such as antiinflammatory,
anti-oxidant

and analgesics. Osteoarthritis (OA) knee is a problem
that is quite common in the older people but until now there has not been
pharmacologic modalities as a adjunctive therapy available which are suitable and
safe. Aphanizomenon Flos Aquae may become a good alternative as an adjunctive
therapy in older patients with knee OA.
Objective : To determine the effect of AFA on the improvement of clinical
outcome of Knee OA in older patients based on WOMAC index scores.
Methods : A double-blind randomized clinical trial was conducted from
November 2014 until May 2015 to older adult patients with Knee OA at the
Geriatric and Rheumatology clinic in Hasan Sadikin General Hospital. The
subjects were divided into groups, each group received capsules containing AFA
2 times 2 capsules (1.28 gr/day) and the other received placebo for 60 days.
WOMAC Index scores were assessed at day 1 and day 60. The difference in
assessment of WOMAC index scores of each group at the end of the study were
analyzed by Mann-Whitney.
Results : Out of total 254 subjects, there were 98 patients who met the initial
criteria and were randomized into two groups, AFA and placebo group with each
consisting of 49 subjects. Both groups were comparable in all important
prognostic factors. The composite WOMAC Index scores in AFA group was
significantly different than the placebo group at the end of the study (p <0.001),
with each score of 8 (IQR,median 3-18) vs. 18 (IQR,median 8-32) respectively.
There was no serious adverse events found throughout the study.
Conclusion : Aphanizomenon Flos Aquae was able to show clinical improvement based on WOMAC
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