

ABSTRAK

Pengaruh Murottal Al-Qur'an Terhadap Kadar Serotonin Plasma dan Luaran Klinis Pasien Stroke Iskemik Akut

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Latar belakang: Pada berbagai penyakit murottal Al-Qur'an muncul sebagai terapi non farmakologis yang memiliki keunggulan dalam menimbulkan ketenangan dan rasa tenang dibandingkan terapi auditorik lain karena memiliki unsur religius dan spiritualitas yang tinggi. Terapi murottal Al-Qur'an telah cukup banyak diteliti dan terbukti memberikan efek pada peningkatan kesadaran, *mood*, relaksasi, atensi, nyeri, cemas/depresi, dan peningkatan luaran klinis yang lebih baik.

Tujuan: Penelitian ini bertujuan untuk mengetahui pengaruh paparan murottal Al-Qur'an terhadap luaran klinis (e-NIHSS) dan kadar serotonin plasma pada pasien stroke iskemik akut.

Metode: Studi *quasi* eksperimental. Subjek yang memenuhi kriteria inklusi dan eksklusi (n=32), dibagi menjadi kelompok murottal (n=16) dan kelompok non murottal (n=16). Kelompok murottal diberikan paparan murottal selama 3 hari menjalani rawat inap, dengan frekuensi 2x sehari durasi 30 menit. Diukur perubahan skor e-NIHSS dan perubahan kadar serotonin plasma saat masuk dan pulang.

Hasil: Terdapat perbedaan yang signifikan antara delta e-NIHSS dan delta serotonin sebelum dan setelah terapi pada masing-masing kelompok ($p < 0,05$). Lama rawat inap kelompok murottal lebih cepat dibandingkan non-murottal $4,8 \pm 0,8$ dibanding $6,1 \pm 1,6$ hari ($p = 0,016$). Terdapat perbaikan rerata skor e-NIHSS yang lebih besar pada kelompok murottal dibandingkan non murottal ($2,38 \pm 1,62$ dibanding $1,69 \pm 1,04$, $p = 0,239$). Terdapat peningkatan kadar serotonin plasma yang lebih besar ($41,57 \pm 30,73$ dibanding $23,38 \pm 19,37$) dengan penurunan kadar serotonin plasma yang lebih kecil pada kelompok murottal dibandingkan kelompok non-murottal ($19,35 \pm 22,48$ dibanding $22,29 \pm 20,34$) $p = 0,342$ dengan kecenderungan peningkatan serotonin plasma pada kelompok murottal dan penurunan serotonin plasma pada non-murottal. Hasil yang tidak signifikan dimungkinkan karena jangka waktu evaluasi terapi yang pendek (3 hari).

Simpulan: Memperdengarkan murottal Al-Qur'an selama 3 hari pada fase akut rawat inap stroke iskemik tidak terbukti meningkatkan kadar serotonin plasma dan luaran klinisnya, akan tetapi mungkin ikut berperan dalam mempersingkat lama rawat inap.

Kata Kunci: Terapi Murottal Al-Qur'an, Serotonin Plasma, Stroke Iskemik, Luaran Klinis, e-NIHSS.

ABSTRACT

THE EFFECT OF AL-QUR'AN RECITATION ON PLASMA SEROTONIN LEVELS AND CLINICAL OUTCOME OF ACUTE ISCHEMIC STROKE

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Background: In various conditions, Al-Qur'an recitation appears as a non-pharmacological therapy which has an advantage in generating calm and a sense of peace compared to other auditory therapies because it has a religious and high spirituality. Al-Qur'an recitation therapy has been well researched and proven to have an effect on increasing awareness, mood, relaxation, attention, pain, anxiety / depression, and improving clinical outcomes.

Objective: This study aims to determine the effect of Al-Qur'an recitation exposure on clinical outcomes (e-NIHSS) and plasma serotonin levels in acute ischemic stroke patients.

Method: Quasi-experimental study. Subjects that met the inclusion and exclusion criteria (n = 32) were divided into murottal groups (n = 16) and non murottal groups (n = 16). The murottal group was then given murottal exposure for 3 days of hospitalization, with a frequency of 2x a day, duration of 30 minutes. Measured changes in e-NIHSS scores and changes in plasma serotonin levels on admission and discharge.

Results: There was a significant difference between e-NIHSS and serotonin before and after therapy in both groups (p < 0.05). The length of stay for the murottal group was shorter than for non-murottal 4.8 ± 0.8 compared to 6.1 ± 1.6 days (p = 0.016). There was an improvement in the mean e-NIHSS score that was greater in the murottal group compared to non murottal (2.38 ± 1.62 compared to 1.69 ± 1.04 , p = 0.239). There was a greater increase in plasma serotonin levels (41.57 ± 30.73 compared to 23.38 ± 19.37) with a smaller decrease of plasma serotonin levels in the murottal group than in the non-murottal group (19.35 ± 22.48 compared 22.29 ± 20.34 , p = 0.342) with a tendency of increased plasma serotonin in the murottal group and decreased of plasma serotonin in the non-murottal group. Insignificant results are possible because of the short evaluation period of therapy (3 days).

Conclusions: Listening Al-Qur'an recital for 3 days in acute ischemic stroke phase hospitalization do not improve plasma serotonin levels and clinical outcome on discharge but may contribute in shortened length of stay.

Keywords: Al-Qur'an Recitation Therapy, Plasma Serotonin, Ischemic Stroke, Clinical Outcome, e-NIHSS