

Primjena transkranijске magnetne stimulacije kod starije populacije

/ Use of Transcranial Magnetic Stimulation in the Elderly Population

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Depresija kod starijih ljudi s obzirom na globalno starenje populacije postaje ozbiljan javnozdravstveni problem. Trenutno se procjenjuje kako 8 – 16 % osoba starijih od 65 godina ima klinički značajne depresivne simptome što doprinosi povećanom pobolu i preranoj smrti takvih osoba (1). Kod starijih ljudi oboljelih od depresije često su prisutna i kognitivna oštećenja, od blagih kognitivnih oštećenja (MCI) pa sve do demencije. Općenito, pacijenti s depresijom pokazuju značajno povećani rizik od demencije od opće populacije. Također, smatra se kako je depresivna simptomatologija kod podgrupe starijih ljudi u stvari prodrom demencije (2). Iz navedenog bi se moglo zaključiti kako je depresija u starijih osoba povezana s povećanom pojavom kognitivnih oštećenja, a pad kognitivnih funkcija tijekom vremena prediktor za razvoj demencije.

Given the global ageing of the population, depression in the elderly is becoming a serious public health problem. It is currently estimated that 8-16% of people over 65 years of age have clinically significant depressive symptoms, which contributes to increased sickness and premature death of such individuals (1). In elderly people suffering from depression, cognitive impairments are often present, from mild cognitive impairments (MCI) to dementia. In general, patients with depression show a significantly increased risk of dementia than the general population (1). It is also believed that in a subgroup of older people depressive symptomatology is actually a penetrating symptom of dementia (2). Therefore, it can be concluded that depression in the elderly is associated with an increased occurrence of cognitive impairment, and a decline in cognitive function over time is a predictor for the development of dementia.

Pravovremena dijagnoza je ključna, kao i kasnije liječenje depresije u starijih ljudi, koje se sastoji od primjene antidepresiva (AD), elektrokonvulzivne terapije (EKT), a u zadnje vrijeme sve češće i primjene repetitivne transkranijске magnetne stimulacije (rTMS). rTMS je neinvazivna tehnika kojom se modulira neuralna aktivnost pomoću pulsnoг magnetnog polja. Smanjenje simptoma depresije se najčešće postiže rTMS-om u području dorzolateralnog prefrontalnog korteksa (dlPFC). Istraživanja pokazuju veliku ulogu rTMS-a u liječenju terapijski rezistentnih depresija (3).

Prema nekim smjernicama rTMS je odobren kao druga linija za liječenje depresija. Često se koristi i kao komplementarna metoda liječenja uz EKT zbog malog broja ozbiljnih nuspojava. Prema literaturnim podacima EKT je učinkovitiji u liječenju depresije kod starijih osoba nego rTMS što se tiče kratkoročnog učinka, ali još nema dovoljno podataka pomoću kojih bi se napravila usporedba dugoročnih rezultata. Također, EKT je superiorniji rTMS-u u slučaju psihotičnih simptoma tijekom depresivnih epizoda. U slučajevima kada nema psihotičnih elemenata rTMS se smatra jednako učinkovit kao EKT (1,3). Čimbenici učinkovitosti rTMS-a kod starijih su dob bolesnika, stupanj moždane atrofije, broj isporučenih impulsa, klinički profil bolesnika u koji spadaju medicinski komorbiditeti, prisutnost psihotičnih elemenata, simptomi melankolije te stupanj kognitivnog oštećenja (1).

Potrebna su daljnja istraživanja učinkovitosti rTMS-a kod starijih ljudi zbog česte prakse isključenja ove dobne skupine iz istraživanja.

Timely diagnosis is crucial, as well as later treatment of depression in elderly people consisting of the administration of antidepressants (AD), electroconvulsive therapy (ECT), and recently more frequent administration of repetitive transcranial magnetic stimulation (rTMS). rTMS is a non-invasive technique that modulates neural activity using a pulse magnetic field. The reduction of symptoms in depression is usually achieved by rTMS in the area of dorso-lateral prefrontal cortex (dlPFC). Studies show a large role of rTMS in the treatment of therapeutically resistant depression (3).

According to some guidelines, rTMS is approved as a second line to treat depression. It is also often used as a complementary method of treatment with ECT due to a small number of serious side effects. According to existing literature, ECT is more effective in treating depression in older people than rTMS as regards short-term effects, but there is still insufficient data to compare long-term results. Also, ECT is superior to rTMS in case of psychotic symptoms during depressive episodes. In cases where there are no psychotic elements, rTMS is considered as effective as ECT (1,3). The efficacy factors of rTMS in the elderly are the age of the patient, the degree of cerebral atrophy, the number of impulses delivered, the clinical profile of patients with medical comorbidities, the presence of psychotic elements, the symptoms of melancholia, and the degree of cognitive impairment (1).

Further studies on the effectiveness of rTMS in older people are needed due to the frequent practice of excluding this age group from research.

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