

Znanstveno dokazan pristop vadbe za obravnavo skolioz

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Uvod: Znanstveno dokazan pristop vadbe za obravnavo skolioz (angl. Scientific Exercise Approach to Scoliosis - SEAS) izhaja iz lyonske šole (1). Glavne značilnosti obravnave so: izboljšanje pacientovega zavedanja o deformaciji hrbtenice, aktivna samopoprava drže, izboljšanje stabilnosti hrbtenice, vključevanje aktivne samopoprave drže v stabilizacijske vaje, ki vključujejo nevro-motorično kontrolo, proprioceptivni trening in vaje za ravnotežje ter izvajanje posebnih vaj za skoliozo v stezniku, pri čemer se steznik uporabi kot vadbena orodje (2). Aktivna samopoprava drže v treh prostorskih ravninah je najpomembnejši del individualne obravnave. Prva stopnja učenja popravljanja drže se začne v frontalni ravnini. Obravnava obsega učenje zavedanja premika vrha krivine proti konkavni strani. V drugi stopnji sledi poprava drže v sagitalni ravnini. Pacient ponovno vzpostavi prsno kifoza in ledveno lordozo. Tretja stopnja je združevanje gibov iz frontalne in sagitalne ravnine. Izvajanje korekcijskih gibov v dveh ravninah sproži vključitev gibanja v tretji, transverzalni ravnini, v kateri pride do rotacije vretenc v nasprotno smer (3, 4). Pacient se mora naučiti, da med izvajanjem vaj vedno kontrolira pravilno izvedbo izbrane poprave drže. Pri tem mu pomagajo štiri standardna vprašanja, ki si jih zastavi med izvedbo giba: Ali je moja hrbtenica vzravnana? Ali je moje telo po izvedbi poprave drže bolj simetrično kot prej? Ali sem sposoben zadržati popravljen držo med izvajanjem vaje? Ali opazim, da se po izvedbi poprave drže moje telo vrne nazaj v položaj, v katerem je bilo pred izvedbo poprave? (2) Namen povzetka je predstaviti metodo SEAS. **Metode:** Preiskovanje na spletu dostopnih podatkovnih zbirk: Google, Google Scholar, PubMed, Scoliosisjournal. Kriterij za izbiro članka so bili prispevki o metodi SEAS, objavljeni v angleškem jeziku. **Rezultati in zaključki:** Metoda SEAS se od drugih pristopov razlikuje v tem, da pri oblikovanju terapevtskega programa upošteva in daje popolna pozornost pacientu in posebnostim njegovih skoliotičnih krivin. Program vaj se spreminja glede na pacientovo sposobnost izvedbe vaj. SEAS je aktiven pristop, ki zahteva aktiviranje globokih mišic ob hrbtenici in deluje na načelu miselnovedenjskega pristopa. Rezultati znanstvenih raziskav potrjujejo, da se z obravnavo po metodi SEAS zmanjša potreba po predpisu steznika, SEAS izboljša parametre skoliotičnih krivin, z obravnavo po SEAS-u se ponovno vzpostavi normalno ravnotežje in koordinacija telesa, aktivna poprava drže po načelu SEAS vpliva na zmanjšanje velikosti krivin na rentgenskih posnetkih, obravnava po SEAS-u izboljša rezultate terapije v primeru nošnje steznika, z vajami v stezniku, za povečanje prsne kifoze po metodi SEAS se najbolje izkoristi korekcijski pritisk steznika na krivino. Številni objavljeni članki o učinkih metode SEAS dokazujejo, da gre za z dokazi podprto metodo. Za pacienta je učenje temeljnih principov SEAS-a precej enostavno. Metoda se lahko uporabi pri obravnavi krivin vseh velikosti.

Ključne besede: SEAS, vaje za skoliozo, adolescentna idiopatska skolioza, vaje v stezniku, konservativna obravnava.

Scientific Exercise Approach to Scoliosis

Background: SEAS is an acronym for Scientific Exercise Approach to Scoliosis and originates from the Lyon approach where a number of the basic characteristics to the approach had been developed (1). This includes: improving the patient's awareness of their deformity, active self-correction (ASC), improvement of the spinal stability, associating ASC with stabilizing exercises, that include neuro-motor control, proprioceptive training and balance, the performance of in-brace scoliosis specific exercises using the brace as a training tool (3). Active Self-Correction on the three spatial planes is the most important individualized therapeutic moment. The first phase includes becoming aware of curve apex translation toward concavity on the frontal plane. The second phase includes becoming aware of correction of the sagittal plane. The patient must ensure thoracic kyphosis and lumbar lordosis. The third phase is associating ASC movements of the frontal and sagittal planes. An action done on two spinal planes causes an involvement of the third plane, transversal where the cross-sectional derotation occurs (3, 4). During the performance of the exercise, the patient is asked to always verify the correct maintenance of the selected self-correction. In order to facilitate this control the patient uses a series of standard questions that they ask themselves during the treatment. These questions are: Is my spine supported? Is my body now more symmetrical than before? Whilst doing the exercise am I able to maintain the correction? Am I able to see that my body returns back to the original position it was before performing the self-correction? (2) The main object of the summary is to present the SEAS method. **Methods:** Findings published in English language in the following bibliographic databases were summarised: Google, Google Scholar, PubMed, Scoliosisjournal. The criteria for choosing the articles were articles about SEAS in English. **Results and Conclusions:** Strength of the SEAS approach is in the absolute attention and consideration of the patient's individual characteristics for the design of the treatment program. Exercise program changes according to patient's ability to perform the exercises. SEAS is the active intrinsic approach that works on the principals of a cognitive-behavioral approach. Scientific results of SEAS proves that SEAS treatment reduces the need for bracing, SEAS treatment improves scoliosis parameters, SEAS treatment normalizes balance and coordination in scoliosis patients, ASC according to SEAS principles reduces the radiographic curve, SEAS treatment improve results in case of bracing, SEAS kyphotisation exercises is the most useful to help bracing push work. A lot of published articles about the results obtained with SEAS prove that this is an evidence-based approach. From the patient point of view it is relatively simple way to accomplish the basic principles of the SEAS. SEAS can be used for treatment of all size curves.

Keywords: SEAS, exercises for scoliosis, adolescent idiopathic scoliosis, scoliosis in-brace exercises, conservative treatment.

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