

## Zanesljivost Constantove ocenjevalne lestvice funkcije rame

Asist. dr. **Polona Palma**, dipl. fiziot., prof. šp. vzg., **Elzabela Martini**, dipl. fiziot., viš. pred. mag. **Sonja Hlebš**, viš. fiziot., univ. dipl. org.

Univerza v Ljubljani, Zdravstvena fakulteta, Ljubljana, Slovenija

**Korespondenca/Correspondence:** Polona Palma; e-pošta: polona.palma@zf.uni-lj.si

**Uvod:** Ocenjevalne lestvice za ramenski obroč se delijo v splošne (American Shoulder and Elbow Surgeons, Disabilities of the Arm, Shoulder and Hand), specifične glede na okvaro oziroma bolezen (Rotator cuff Quality of Life, Western Ontario Rotator Cuff Index) in specifične glede na stanje (Oxford Shoulder Instability Questionnaire) (1). V rehabilitacijski obravnavi bolnikov z boleznimi in poškodbami ramenskega sklepa je večina ocenjevalnih sistemov zasnovana na ravni okvare, vendar narašča potreba po meritvah omejitve dejavnosti. Constant in Murley (2) sta ena prvih opisala sistem točkovanja, ki je usmerjen izključno v številčen opis kakovosti funkcije rame. Constantova ocenjevalna lestvica funkcije rame (COLFR) je pogosto uporabljen točkovalni sistem, specifičen za oceno rame. Z raziskavo smo želeli ugotoviti zanesljivost COLFR pri pacientih s poškodbami ramenskega sklepa. **Metode:** V raziskavo je bilo vključenih 30 polnoletnih prostovoljcev, starih povprečno  $47,7 \pm 15,9$  leta, z unilateralno poškodbo ramenskega sklepa. Sodelovali so naključno izbrani pacienti z različnimi okvarami ramen, ne glede na vrsto poškodbe in način zdravljenja, ki so bili po poškodbi ramenskega sklepa vključeni v rehabilitacijo v Zdravilišču Laško. Pogoj je bil, da so imeli poškodovano ramo pred manj kot tremi leti. Kontrolna rama je morala biti nepoškodovana oziroma naj bi od poškodbe ali operacije minilo več kot 5 let. Za ocenjevanje funkcije rame smo uporabili v slovenščino prevedeno lestvico COLFR (3). Uporabljena je bila metoda testa in ponovnega testa, saj so bile meritve opravljene dvakrat v razmiku treh dni. Raziskavo je odobrila komisija Republike Slovenije za medicinsko etiko. **Rezultati:** Povprečna vrednost COLFR za levi zgornji ud pri prvem testiranju je bila za 0,8 večja kot povprečna vrednost pri drugem testiranju. Povprečni vrednosti COLFR za desni zgornji ud sta bili pri prvem in naslednjem testiranju enaki. Razlika v obih primerih ni bila statistično pomembna ( $p < 0,05$ ). Do statistično pomembnih razlik ( $p = 0,018$ ) med prvimi in drugimi meritvami je prišlo v kategoriji bolečina pri testiranju na levem zgornjem udu. Povprečna vrednost prve meritve je znašala 2,5 točke, povprečna vrednost druge meritve pa 2,8 točke. Celotna ocenjevalna lestvica, kot tudi osem izmed desetih kategorij na levem zgornjem udu, je imelo intraklasni koeficient korelacije (ICC) večji od 0,9. Na desnem zgornjem udu je imela celotna ocenjevalna lestvica, kot tudi vse posamezne kategorije, ICC večji od 0,9. **Zaključki:** Rezultati so pokazali, da je COLFR zanesljiv meritni pripomoček za oceno funkcije ramenskega sklepa po različnih poškodbah ali operacijah. Čeprav je izvedba COLFR zelo preprosta, cenovno dostopna in zahteva minimalen čas za oceno pacienta, se v terapiji bolj malo uporablja. Z njo bi lahko objektivneje spremljali rezultate fizioterapevtskih obravnav.

**Ključne besede:** Constantova ocenjevalna lestvica funkcije rame, zanesljivost, poškodbe ramenskega sklepa.

## Reliability of the Constant shoulder function assessment scale

**Background:** Shoulder joint evaluation scales are divided into general scale (American Shoulder and Elbow Surgeons, Disabilities of the Arm, Shoulder and Hand), specific in relation to the injury or disease (Rotator cuff Quality of Life, Western Ontario Rotator Cuff Index) and specific in relation to the condition (Oxford Shoulder Instability Questionnaire) (1). Most of the shoulder rehabilitation evaluation systems are based on the level of impairment, but there is an increased need for measurement of activity limitations. Constant and Murley (2) were among the first ones to describe grading system, using numerical description of shoulder function. Their Constant shoulder function assessment scale (COLFR) is commonly used shoulder scoring system. The aim of this study was to determine the reliability of COLFR in patients with shoulder injuries. **Methods:** The study included 30 adult volunteers, average age  $47.7 \pm 15.9$  years, with unilateral shoulder injury which occurred last than three years ago. Control shoulder should be free from injury or surgery more than five years. Participants were randomly selected, regardless of the type of injury and treatment. Their rehabilitation took place in Spa centre Laško. For the assessment of shoulder function, the COLFR scale, translated into Slovene, was used (3). Test-retest reliability was determined with measurements performed twice in the interval of three days. Research was approved by the Slovenian Republic medical ethics committee. **Results:** The average value of COLFR for the left shoulder in the first testing was 0.8 higher than the average value for the left shoulder in the second testing. Average values of COLFR for the right shoulder were the same for the first and subsequent testing. The difference was not statistically significant ( $p < 0.05$ ) for either left or right shoulder. Statistically significant difference ( $p = 0.018$ ) was found only between the first and the second measurement in the category of pain in the left shoulder. First measurement average value was 2.5 points, second measurement average value was 2.8 points. The whole evaluation scale, as well as the eight out of ten categories on the left shoulder had interclass correlation coefficient (ICC) higher than 0.9. On the right shoulder the whole evaluation scale as well as all single categories had ICC higher than 0.9. **Conclusions:** The results showed that the COLFR is reliable measuring device for the assessment of shoulder condition after injuries and various operations. Although the performance of COLFR is very simple, cost effective and easy to use, it is not frequently used in therapy. Using COLFR assessment scale could help to evaluate the results of physiotherapeutic treatments more objectively.

**Keywords:** Constant shoulder function assessment scale, reliability, shoulder injuries.

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