The effect of one session of high velocity low amplitude thrust manipulation (HVLA) at the cervicothoracic junction (CTJ) and thoracolumbar junction (TLJ) in healthy female elite waterpolo players on maximal throwing speed performance, functional movement (SPADI and DASH questionnaire), pain (NPRS questionnaire), range of motion (inclinometer (CTJ, TLJ and shoulder) and strength of the muscles in the shoulder region by hand-held dynamometer.

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In this study we are interested in the effect of high velocity low amplitude thrust manipulation at the cervical-thoracic junction and thoracic-lumbar junction in healthy elite female water polo players on :maximum throwing speedfunctional movement...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON42864

Source
ToetsingOnline

Brief title
effect of manipulation CTJ and TLJ on waterpolo throwing performance

Condition

- Other condition

Synonym
throwing speed and movement of the shoulder

Health condition

algehele beweeglijkheid van de schoudergordel, cervicothoracale overgang en de thoraco-lumbale overgang bij gezonde personen

Research involving
Human

Sponsors and support

Primary sponsor: Vrije Universiteit Brussel
Source(s) of monetary or material Support: Onderzoeker zelf

Intervention

Keyword: shot velocity, Spinal manipulation, water polo, women

Outcome measures

Primary outcome

maximum throwing speed

functional movement SPADI, DASH,

pain NRS

range of motion of the shoulder

strength of the shoulder muscles

Secondary outcome

Relatie between throwing speed and shoulder problems

Study description

Background summary

Manipulative therapy is nowadays common in elite sports although the working mechanism isn*t totally clear. In the support staff of the Dutch national women water polo two of the members are physiotherapist skilled in manual therapy. During the last decade every team member had a high-velocity, low-amplitude thrust manipulation during her career, most of them improved after treatment and could perform well. The team was very successful during the last tournaments and became vice World champion and vice European champion. Also the coaches, former players, use frequently high velocity low amplitude thrust manipulation at the cervical-thoracic junction for a better functional movement. In the fields of manual therapy and water polo it*s believed by al the national coaches and players that manual therapy contributes to an improvement in the shoulder function. Although water polo requires high levels of physical fitness the throwing velocity and capacity is considered to be one of the most important aspects of the game. *
The shoulder function is a key factor in the throwing capacity of the athlete and disorders in the shoulder region are a major concern for the medical staff of the water polo teams.

Study objective

In this study we are interested in the effect of high velocity low amplitude thrust manipulation at the cervical-thoracic junction and thoracic-lumbar junction in healthy elite female water polo players on :
maximum throwing speed
functional movement SPADI, DASH,
pain NRS
range of motion of the shoulder
strength of the shoulder muscles

Study design

explorative
cross over
double blind

Intervention

Manuel manipulation

Study burden and risks

The study is integrated in the normal training of the national team in a relative easy period
So no burdens or risk are expected

Contacts

Public
Vrije Universiteit Brussel

Laabeeklaan 103
Brussel, Belgie 1090
BE
Scientific
Vrije Universiteit Brussel

Laabeeklaan 103
Brussel, Belgie 1090
BE

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Member of the Dutch national women water polo selection

Exclusion criteria

shoulder injury

Study design

Design

Study type:	Interventional
Intervention model:	Crossover
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Active
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	31-01-2017
Enrollment:	12
Type:	Actual

Ethics review

Approved WMO

Date:	31-01-2017
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Utrecht (Utrecht)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL57056.041.16