ISRCTN11632545 https://doi.org/10.1186/ISRCTN11632545

Influence of cranial-sacral osteopathic treatment on the performance of young soccer players

Submission date
25/01/2015

Recruitment status
No longer recruiting

Registration date
06/02/2015

Overall study status
Completed

Last Edited
05/02/2015

Condition category
Musculoskeletal Diseases

[X] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
CSOT is thought to be a complementary approach for the prevention and treatment of dysfunctions and enhancement of health in osteopathy. In sports medicine, cranial sacral treatments have been proposed for the prevention, restoration and optimization of the function of the body. Players' health condition affects every aspect of their performance ability. According to osteopathic philosophy, structure and function are inter-related and by improving the structure, the function should improve, osteopathic treatments might be a valuable tool to optimise physical performance. The aim in this study is to investigate the effects of CSOT on performance and recovery of young soccer players.

Who can participate?
Healthy boys who play soccer

What does the study involve?
Participants will be randomly allocated to one of two groups. Group 1 (n=20) will be treated with osteopathic cranial-sacral diversified techniques and group 2 will receive a sham intervention for 8 weeks. The effects after CSOT will be compared with those of the sham intervention.

What are the possible benefits and risks of participating?
A benefit might be that participants notice some improvements in their performance. The risks might be physical injury and cardiovascular risks.

Where is the study run from?
Junior Team Futebol Club (Brazil)

When is the study starting and how long is it expected to run for?
From February 2015 to April 2014

Who is funding the study?
British School of Osteopathy (UK)

Who is the main contact?
Ms Patricia Miyuki Hirai

Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
N/A

Study information

Scientific Title
Influence of cranial-sacral osteopathic treatment on the performance of young soccer players: a single-blind randomised controlled study

Study objectives
1. Cranial-sacral osteopathic treatments (CSOTs) can be a valuable tool to enhance training recovery, assessed by the repeated sprint ability test (RSAT), heart rate variability (HRV), heart rate and perceived recovery wellbeing, in young soccer players
2. CSOTs can positively influence performance in young soccer players

Ethics approval required
Old ethics approval format

Ethics approval(s)
British School of Osteopathy Research Ethics committee, 18/06/2014

Study design
Single-blind randomised controlled study

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Other

Study type(s)
Treatment

Participant information sheet

Health condition(s) or problem(s) studied
Training performance of young soccer player

Interventions
Soccer players will be randomly assigned to one of two treatments for 8 weeks:
1. CSOT: motion analysis of cranial-sacral movements with patient lying supine; areas of dysfunctional motion will receive specific treatment consisting of occipital-sacral rhythm, sphenobasilar and compression of the fourth ventricle techniques applied according to the findings.
2. Sham intervention: standardised light manual contact on the same anatomical regions as the CSOT group, without therapeutic intention; seven serial calculations will be subtracted in silence

Intervention Type
Procedure/Surgery

Primary outcome measure
1. Physical performance (RSAT – RSATbest and RSATmean) in the the first, fourth and eighth weeks
2. Perceived recovery wellbeing (training wellbeing diary, adapted from Bompa and Haff, 2009) before every intervention
3. Adaptation aspects (HRV before and after each CSOT and sham procedure)
4. Mean heart rate during the last 30 seconds of exercise

Secondary outcome measures
Verify whether osteopathy is a valuable adjuvant tool to enhance performance in young soccer players

Overall study start date
11/02/2015

Completion date
25/04/2015

Eligibility

Key inclusion criteria
1. Physically and mentally healthy athletes without any symptoms of neuromusculoskeletal pain, injury or illness
2. Soccer players
3. Age 16–18 years
4. Legal guardians' consent for participation in the study
5. Regular attendance at training sessions and competitive matches for 5 days a week for at least 5 years
6. Defenders (central and external/full-backs and wing-defenders), midfielders (central and wide) and attackers (forwards)
7. Naïve to cranial-sacral osteopathic care
8. Possessing no previous knowledge and experience of cranial-sacral osteopathic procedures
9. No change of medical or physical routine because of the addition of the new procedures

Participant type(s)
Healthy volunteer

Age group
Mixed

Sex
Male

Target number of participants
40

Key exclusion criteria
1. Acute fracture or infections
2. Cancer
3. Signs of progressive neurological deficit
4. Professional soccer athletes
5. Goalkeepers (since technical skills differ significantly from outfield players and have a specific physiological and biomechanical profile [Eirale et al, 2014])
6. Current illness
7. Suspicion of increased intracranial pressure
8. Cardiac disease
9. Pulmonary diseases
10. Injuries
11. Signs or symptoms of pain or illnesses such as inflammation

Date of first enrolment
11/02/2015

Date of final enrolment
11/02/2015

Locations

Countries of recruitment
Brazil

Study participating centre
Junior Team Futebol Club
Londrina
Brazil

Sponsor information

Organisation
British School of Osteopathy

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275 Borough High Street
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Sponsor type
University/education

ROR
https://ror.org/05tnja216

Funder(s)

Funder type
University/education

Funder Name
British School of Osteopathy

Results and Publications

Publication and dissemination plan
1. Data from this research project might be published in future and/or used in other studies.
2. Articles will be prepared and submitted to scientific events from September 2015.

Intention to publish date
30/09/2015

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration