ardıcıllıqla pozulma səbəb olduğu düşünülən Patellofemoral ağrı bu gün mürəkkəb və multifaktorial problem olaraq qəbul edilir. Patellofemoral anamnez, klinik və radioloji nəticələr birgə ağrı olan xəstələrin qiymətləndirilməsində birlikdə qiymətləndirilməlidir. PFAS diaqnozunda hələ bir aydınlıq olmasa da, toxuma müqavimət göstərəcəyi yükün toxuma homeostazını pisləşdirdiyini və nəticədə ağrı meydana gəlməsini təklif edən toxuma homeostazı nəzəriyyəsi populyarlıq qazanır. Bu müqavimətin miqdarı şəxsin xüsusiyyətlərindən (obezlik, cinsiyyət, idman, genetika və s.) asılı olaraq dəyişə bilər.

Açar sözlər: Patellofemoral oynaq, ön diz ağrısı, fizioterapiya, ortez, vastus medialis obliquus, quadriseps, müalicə, nəticə tədbirləri, , patellar bantlama, patellofemoral ağrı sindromu.

A DESCRIPTIVE STUDY COMPARING THE FOOT AND ANKLE STRUCTURE AND DYNAMICS IN CHILDREN WITH CEREBRAL PALSY AND CHILDREN WITHOUT CEREBRAL PALSY

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Publication date
Accepted: January 11, 2020
Published: March 5, 2020

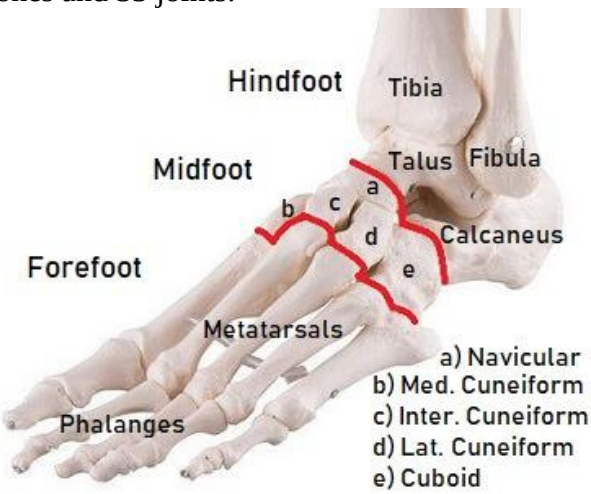
Annotation. This study will conduct to investigate the effects of foot and ankle characteristics on balance and function in children with Cerebral Palsy and healthy children. A total of 37 children; 17 healthy subjects and 20 children who diagnosed with Cerebral Palsy will included in the study. All of the childrens' foot postures will determine with the foot posture index, navicular drop test, navicular height and arc height ratio calculation. In addition to these procedures, static and dynamic pedobarographic analysis will performe. Postural sway will measure on the stabilometric platform. Balance and functional performance will measure by using; the pediatric balance scale, pediatric reach test and timed performance tests such as the tind up and go test, time up-down stair test, ten meter walking test will performe. The differences of these parameters between two groups and the relationship between foot posture parameters, balance and functional tests will investigate.

Key words. Cerebral palsy, foot characterics, balance, mobility

Introduction. CP is a congenital condition in which there is a motor disability (palsy) caused by a static, nonprogressive lesion in the brain (1). Motor impairment is often accompanied by sensory, cognitive, communication, behavior, perception problems, secondary musculoskeletal disorders and epilepsy .
Many Cerebral Palsy classification systems are used today and the same child may be classified differently at different times, by different people, and in different regions.
Traditional classifications of CP based on multiple variables. CP subtypes based on the Swedish classification (1989) are spastic (hemiplegic, tetraplegic, and diplegic), dyskinetic (dystonic and athetotic), ataxic and unclassified/mixed.Spastic type CP characterized by increased muscle tone is the most common clinical picture .
Topographic classification relies on the localization/limb distribution of neuromotor impairment in spastic CP. It subdivides spastic CP into: quadriplegia (symmetric/equal and severe spasticity of all four limbs), diplegia (involvement of the four limbs but greater spasticity and weakness in the lower limbs) and hemiplegia (involvement of the upper and lower limbs on one side of the body) Hemiparetic type SP is the type in which the lower and upper extremities of a body half are affected.In patients with hemiparetic CP, spasticity, weight transfer problems to the affected side, balance problems caused by problems such as insufficient heel stroke, inequality in step length, decreases in the

quality of gait parameters and an asymmetric gait are seen .

Foot-ankle complex; it provides the necessary stabilization in order to carry body weight in the upright posture without excessive muscle activity and without effort. The ankle transfers forces from the lower extremity to the foot and transmits reaction forces from the ground to the upper segments. The foot consists of 7 tarsal (talus, calcaneus, cuboid, navicular, 3 cuneiform), 5 metatarsal bones, 14 finger bones and 33 joints.



The precise adaptation of the bone structure of the foot occurs with the tarsal, metatarsal bones and their matching ligaments and the transverse and two longitudinal arcs that they form together. These support arches absorb body weight and distribute the weight, thereby increasing speed and agility during walking.

Foot biomechanics, foot function in static posture and dynamic activities are related to the muscular control and characteristics of the foot. In the normal standing position, the movement axis of the knee joint is in the frontal plane. With flexion and extension, the tibia moves in the sagittal plane with a free swinging motion. The ankle joint axis is inclined 25 ° backward to the frontal plane and 10-15 ° downward to the horizontal plane.

Balance is a complex structure associated with sensory stimulation to regulate and perceive and plan and perform movement to achieve the desired posture, supporting the center of gravity during rest and movement . The balance is examined in two parts as static and dynamic. Balance can be mentioned from the first movement of a healthy, normally developing child against gravity. Postural stability, which is the most important component of postural control, starts to develop from birth and is completed until the age of 3 years. Strategies used to maintain balance in normal developing children and coordination between proximal and distal parts of the body are inadequate in children with CP Foot and hip response is impaired in children with CP. Protraction-retraction of the extremities and trunk rotations contribute to balance more than healthy children because they use less effort than the ankle strategy

Hypotesis: Negative changes in the foot posture affect the balance parameters in hemiparetic CP patients and non CP children

Methods. Foot assesment methods,foot posture index,navicular drop, pedobarogaphy,balance evaluation, Demogrophics, Age , sex ethnicity

For this study we will take Thirty seven children which will be divided into a CP intervention group (n=20) and a comparison group of non CP children (n= 17).

The Childrens foot postures will determine by applying the foot posture index, navicular drop, navicular height measurement and calculation of archeight to all children. In addition, static and dynamic pedobarographic analysis will be performed. Postural oscillations will record on the stabilometric platform. Balance and functional performances will measure using periodical performance tests such as pediatric balance scale, pediatric reach test, periodic walk-up test and periodic stair climbing-stroke test and 10m walking speed. The differences between these parameters and the foot posture parameters and balance and functional tests will examined.

Summary. It was determined that foot posture determined by various methods in children with hemiparetic CP was more pronation than non

CP children. Subtalar foot posture not in neutral position was found to be effective on balance and functional activity performances

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SEREBRAL İFLİCLİ UŞAQLAR İLƏ SAĞLAM UŞAQLARIN AYAQ-AYAQ BİLƏYİ QURULUŞU VƏ DİNAMİKASININ MÜQAYİSƏSİNİN QARŞILIQLI TƏDQİQİ

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Annotasiya. Hemiparetik Serebral iflicli uşaqlarda müxtəlif metodlarla müəyyənləşdirilən ayaq postürünün Serebral iflici olmayan uşaqlarla müqayisədə daha çox pronosyonda olduğu müəyyənləşdirildi. Subtalar neytral pozisiyada olmayan ayaq postünün müvazinət və funksional aktivlikdə təsiri olduğu müəyyənləşdirildi.

Açar sözlər: Uşaq serebral iflic, ayaq-ayaq biləyi xarakteristikası, balans, hərəkətlilik

ОПИСАТЕЛЬНОЕ ИССЛЕДОВАНИЕ, СРАВНИВАЮЩЕЕ СТРУКТУРУ И ДИНАМИКУ СТОПЫ И ГОЛЕНОСТОПНОГО СУСТАВА У ДЕТЕЙ С ЦЕРЕБРАЛЬНЫМ ПАРАЛИЧОМ И ДЕТЕЙ БЕЗ ЦЕРЕБРАЛЬНОГО ПАРАЛИЧА

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Аннотация. Было установлено что высота свода стопы, определенная различными методами у детей с гемипаретическим церебральным параличом была более пронационной, чем у здоровых детей. Было

обнаружено, что подтаранная высота свода стопы, не находящаяся в нейтральном положении, эффективна для достижения баланса и функциональной активности.

Ключевые слова: Детский церебральный паралич, характеристики стопы, баланс, мобильность.

EPIDEMIOLOGICAL FEATURES OF THE BACK PAIN AMONG AZERBAIJAN NATIONAL WRESTLING TEAM SQUAD IN 2018-2019

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Publication date
Accepted: January 11, 2020
Published: March 5, 2020

Annotation. The study was aimed to determine the back pain rewiev among athletes. It is clear that, this problem is basic cause of the disability of the wrestlers. If we are able to determine of the root of this problem and risk group of exercises (treaning part), it is possible that, to dicrease of the back pain among wrestlers. For this study, epidemiological analysis also very important.

Key words: back pain, low back muscles spasm, epidemiology of the back pain exercise therapy, Azerbaijan wrestling, rehabilitation and physiotherapy.

Actuality. About 80 percent of the population suffers from lower back pain at some point in their life. People are at a higher risk of chronic and acute back injuries due to their lifestyle [1]. Athletes have an increased risk of injury to the lumbar (lower) spine due to physical activity [5]. Whether it's sports, skiing, basketball, soccer, ice skating, running, golf or tennis, wrestling, the spine is subjected to great stress, absorption of pressure, twisting, turning and even bodily shock[5]. Although the entire spine is used in sports, it is estimated that 5–10 percent of all sports injuries are associated with the lumbar (lower) spine. Many cases of low back pain in athletes may be associated with a specific event or injury; others are caused by repeated light injuries that result in microtrauma [1, 5].

As in the rest of the world, the problem of back pain is increasing in Azerbaijan 2000-2019. In many publications, this is due to sedentary lifestyle, obesity, diet quality, environmental pollution, bad habits. While, evidence show that, this problem is also increasing among athletes who are active lifestyles [5]. Comparing modern sport to 20th century sports, we find that acceleration, endurance and agility are increasing in all areas of sports. For example, if we look at modern wrestling we can see how fast this type of sport is. As a result, there is some increase in injuries and anxiety in athletes.

Sport medicine and rehabilitation is developing day-to-day and different physiotherapy and treatment methods are emerging. For example, kinesio taping, different exercises therapy methods as Complex Core plus - sport rehabilitation program by (Roman Jahoda). Determining which of them is most effective requires a long time and difficult medical observation. So it takes more time and effort to regain the ability move, to increase physical activity, to minimize the complications and side effects of surgery at the expense of the physical abilities of the body.

Over the past several decades, the health benefits of regular participation in sport activities has been promoted[8]. While the health benefits of exercise outweigh the risks, injuries associated with sports have become common place. Estimates of sport and exercise related injuries range from 9.8 million annually in the United Kingdom to 2.7 million annually in the Netherlands[8]. In Sweden, a survey found that 22.5 sports-related injuries per 1000 inhabitants occur annually[6].

Sports-related injuries most often result in pain associated with soft tissue injuries, such as sprains, strains, and contusions[7]. While not serious, these injuries are often painful and result in temporary disability.

Low back pain is one of the most common diseases of the musculoskeletal system. It is associated with a considerable burden to patients and society. According to the global burden of