

Věda a sport

Role vědce ve Sports Scineces, struktura vědeckého článku

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ČTK ČESKÉ NOVINY

KORONAVIRUS: Zprávy Události kolem zavírání obchodů a služeb Přehled rozvoňovacích balíčků Foto z ČR Foto ze světa

Lancet: Účinnost ruské vakcíny Sputnik V dosáhla 91,6 procenta

Aktualizace: 02.02.2021 16:04 Vydáno: 02.02.2021, 15:15



Ruská proticovidová vakcína Sputnik V - ilustrační foto, ČTK/AP/Pavel Golovkin [Koupit foto](#)

PRÁVĚ ZVEŘEJNĚNO

- Paliva v Česku v týdnu dál zdražila
- McDavid má 104 bodů, Colorado drží šanci na Prezidentův pohár
- Tesla přestane kvůli ekologii přijímat platby v bitcoinech
- Soud začne řešit nárok Rusa Nikulina na odškodnění za vydání do USA
- Bankovní asociace zveřejní nové odhady vývoje ekonomiky
- Sířeny zasněhy i na severu Izraele, bombardování Dáma Gazy pokračuje

03. 06. 2018 | Zpět do přehledu novinek

Výsledky přelomové studie TAILORx, publikované v časopise The New England Journal of Medicine, ukázaly, že test Oncotype DX Breast Recurrence Score® jednoznačně identifikuje většinu žen s časným karcinomem prsu, které nemají prospěch z chemoterapie

deník.cz

PRÁVY PODNIKÁNÍ SPORT NÁZORY MAGAZÍN TIPY MIMINKA | O DENÍK
 VYDLENÍ CESTOVÁNÍ ZDRAVÍ SPOLEČNOST PRO ŽENY HOBBY VĚDA A TECHNIKA | AUT

PŘEHLEDNĚ: Klíčové události války na Ukrajině

Překvapivé zjištění: Dětem bohatých rodičů častěji hrozí zubní kaz, tvrdí studie

TN CZ

VÁLKA NA UKRAJINĚ ZPRAVODAJSTVÍ TN LIVE VIDEO SPORT AUTO POČASÍ

KORONAVIRUS

f SDÍLET

Studie zjistila, kdy začíná klesat účinnost třetí dávky. Výsledky nejsou povzbudivé

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Struktura vědecké práce



Knee Surg Sports Traumatol Arthrosc (2015) 21:2734–2741
DOI 10.1007/s00141-014-3071-9

KNEE



Biomechanical evaluation of knee kinematics after anatomic single- and anatomic double-bundle ACL reconstructions with medial meniscal repair

Olaf Lorbach · Matthias Klab · Christoph Domalik · Mirco Harber · Inke Weyers · Michael Roelcke · Martin Engelhardt

Received: 8 December 2013 / Accepted: 6 May 2014 / Published online: 22 May 2014
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Abstract
Purpose To evaluate knee laxity after anatomic ACL reconstruction with additional suture repair of a medial meniscus tear.
Methods Kinematics of the intact knee were determined in 12 human cadaver specimens in response to a 134-N anterior tibial load (ATT) and a combined rotary load of 10 Nm valgus and 4 Nm internal tibial rotation (ATTFS) using a robot/universal force moment sensor testing system. Subsequently, the ACL was resected following the creation of a standardized tear of the medial meniscus, a standard meniscus repair and an ACL reconstruction using an anatomic single-bundle (S) or an anatomic double-bundle technique (DB). Knee kinematics were determined following every surgery.

Results Significant increase of ATT in the ACL-deficient knee was found ($p < 0.001$) with a further increase in the ACL-deficient knee with additional medial meniscal

repair ($p < 0.001$). ACL reconstructions significantly decreased ATT compared with the ACL and meniscus-repaired knee. No significant differences were seen between the intact knee and the ACL-reconstructed knee with additional meniscal repair ($p < 0.05$). In response to a simulated pivot shift, ATTFS in the intact knee significantly increased in the ACL-deficient knee and meniscus-repaired knee ($p = 0.002$). No significant differences in knee kinematics were found between SB as well as DB ACL reconstruction with additional medial meniscal repair compared with the intact knee. Comparison of SB versus DB ACL reconstruction did not reveal any significant differences in a simulated Lachman test or simulated pivot shift test (n.s.).

Conclusions ATT as well as ATTFS significantly increased with ACL deficiency compared with the intact knee; additional medial meniscal repair further increased ATT. Anatomic ACL reconstruction with medial meniscal repair did not reveal significant differences in knee kinematics compared with the intact knee. Comparison of anatomic SB versus DB ACL reconstruction with additional repair of the medial meniscus did not show significant differences neither in a simulated Lachman test or in a simulated pivot shift test.

Keywords ACL · Meniscus · Knee laxity · Meniscus repair · ACL reconstruction

Introduction

The clinical and biomechanical results after ACL reconstruction using single-bundle versus double-bundle techniques remain controversial. Superior results were described in several papers for the double-bundle technique

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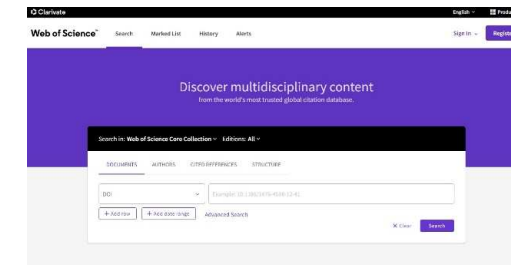
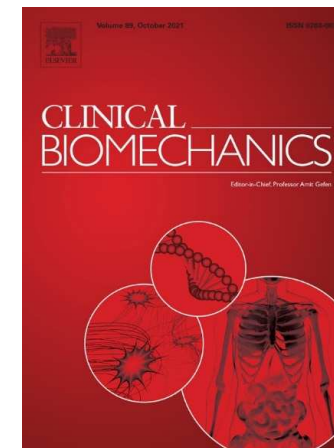
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Vědec



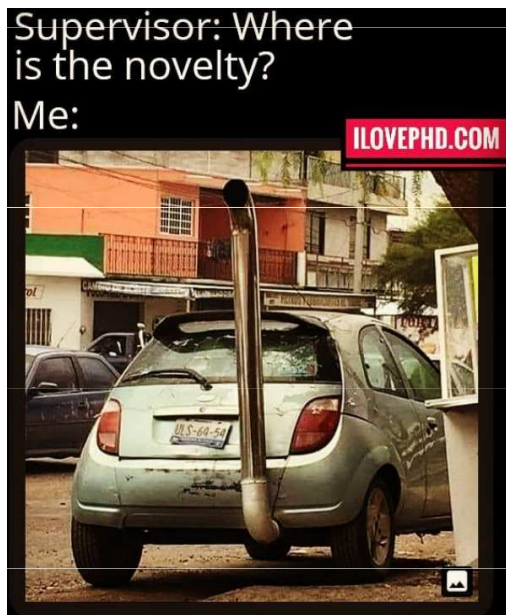
**Sportovní
výživa**

Biomechanika

Fyziologie

**Sportovní
medicína**

Příprava vědecké práce



- Studium současného stavu poznání v dané oblasti (literární rešerše)
- Definování problému
- **Definování přínosu, inovativnosti výzkumu**
- Výstupy (vědecký článek, patent..)
- Podání projektu do projektové výzvy = **financování**
- Tvorba vědeckých otázek a hypotéz výzkumu

**Efektivní vyhledávání a evaluace
kvality dříve uveřejněných
vědeckých publikací**

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Výzkum



Metodologie výzkumu

Her: He's probably thinking about other women...

Him: Is my research methodology is correct? Am I on the right path?

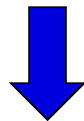
#ILOVEPHD



- Zopakovat již použitou metodiku testování
- Kalibrace přístrojů
- Detailní popis metodiky měření / experimentu
- **Inclusion/exclusion** kritéria
- **Náhodný/cílený** výběr (reprezentativnost souboru)
- Homogenita souboru (antropometrické charakteristiky)
- Kontrolní soubor (intervence)
- Schválení etickou komisí
- Pilotní měření

Výzkum

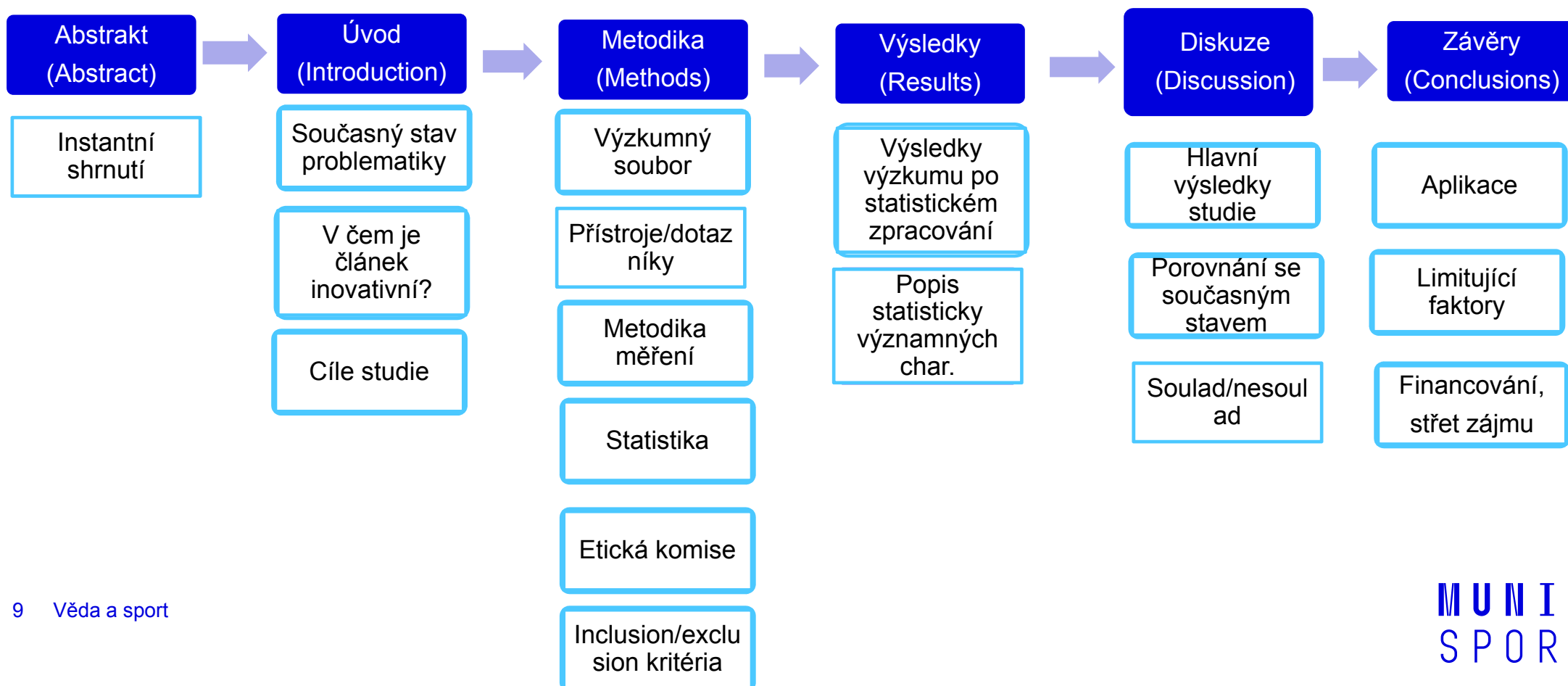
- Výzkum, **sběr dat** (měření, pozorování, dotazníkové šetření)
- Statistické zpracování - **výsledky**
- Zodpovězení **výzkumné otázky**



**Tvorba výstupu – manuskriptu
(vědeckého článku) = transfer
informací k (odborné) veřejnosti**



Struktura vědeckého článku





Struktura vědeckého článku

- **Abstrakt** – shrnutí
- **Úvod** – současný stav - posun
- **Metodika** – metodika měření
- **Výsledky** – statistická analýza
- **Diskuze a závěr** – porovnání se studiiemi v dané oblasti, přenositelnost výsledků do praxe
- **Použitá literatura**

Figure 1 shows the development of government debt and debt interest payments in the Czech Republic. During the 2000-2012 period, Czech government debt exhibited an obvious upward trend, accompanied by rising debt interest payments. After 2012, the government debt dynamics growth was significantly reduced due to a concomitant rise of the economy and wealth of economic agents. Debt interest payments peaked in 2014 and thereafter were declining due to an "escape from risk" effect, where at which investors buy bonds of the relatively "safe" countries with stable currency such as was the Czech Republic. This effect was intensified by the existence of CNB's one-sided foreign exchange commitment of the CNB and investor speculation by investors on future appreciation of the koruna. This environment led to negative bond yields of bonds. The Czech Ministry of Finance, which controls the largest part of the government debt (state debt) as the debt manager, used the environment of negative yields of the medium- and long-term government bonds and to, in December 2015, executed the auction of the government bonds with maturing in 2017 in December 2015 with at the an all-time low yield of -0.35% p.a. The total state public budget revenue from this investment activity, lending facilities with government bonds, and from the negative yields of government bonds amounted to CZK 524.9 million in 2015 (Ministry of Finance, 2016) and a similar trend continued in the following year.

However, this type of operations significantly reduced the average maturity of state government debt, down close to about 5 years. The largest changes occurred in the segment with a residual maturity of up to 3 years. Between 2010 and 2016, the shares in the debt portfolio changed as follows: T-bills dropped from 8.9% to 0.3%, the shares of government bonds with residual time to maturities of up to 1 year increased from 8% to 14.4%, and bonds with RTTM between 1 and 3 years increased from 17% to 29.6% (Figure 2). The value of the share of net foreign-currency exposure to state government debt with the impact on the level of interest expenditure on state government debt reached 11.5% at the end of 2016 and remained under the strategic limit of the Czech Ministry of Finance (15% +2 p.p.). The net foreign-currency exposure of the state government debt with the impact on state government debt service was denominated solely in EUR at the end of 2016. Further details about the debt composition are available in Ministry of Finance (2017).

Libich et al. (2015) highlight the importance of strategic interaction between monetary and fiscal policies, which is expected to grow over time because of increased budget financing pressures coming resulting from ageing population ageing (see also Komarkova et al., 2013 and Ambrisko et al., 2017). This could be a serious issue for the Czech Republic, as the government spending on pensions jumped from CZK 222 bn in CZK in 2008 to CZK 315 bn in CZK in 2015, i.e., it-an increased by of more than 40% over in an 8-year timeperiod.

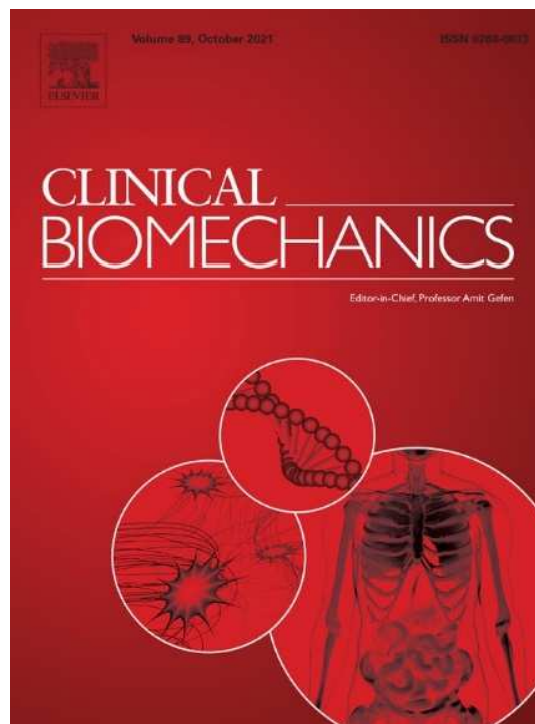
Comment [M11]: V AI se „state“ téměř nikdy nepoužívá tak, jako u nás „stát“. Mělo tuho se použít „government“.

Částečně to vychází z politické tradice a částečně je to proto, že v USA „state“ znamená vždy jejich členské státy, tedy existuje například „state debt“ (přírodní stát) i „government debt“ (federální vláda) a ty je třeba rozlišit.

Comment [M12]: Zde bych možná pro cíl (domácí) dal složkovou hodnotu v (běžnějších) dolarech, čistě pro představu. Hodnotu koruny asi bude v citě z hlavy mák malokilo, a bez představivý o hodnotě měny jsou částky v ní denominované celkem niceňňající.

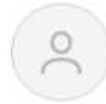
Manuskript vědeckého článku

Vědecký časopis



Vědecký časopis

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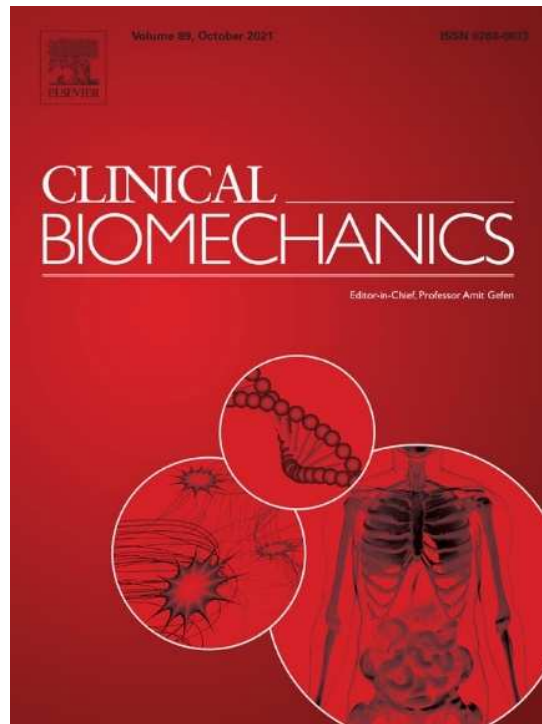


Amit Gefen, PhD

Clinical Biomechanics is an international multidisciplinary journal of **biomechanics** with a focus on medical and clinical applications of new knowledge in the field.

The science of **biomechanics** helps explain the causes of **cell, tissue, organ and body system disorders**, and supports clinicians in the diagnosis, prognosis and evaluation of treatment methods and technologies. *Clinical Biomechanics* aims to strengthen the links between laboratory and clinic by publishing cutting-edge biomechanics research which helps to explain the causes of injury and disease, and which provides evidence contributing to improved clinical management.

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Recenze Peer Review

How peer review works





Biomechanical evaluation of knee kinematics after anatomic single- and anatomic double-bundle ACL reconstructions with medial meniscal repair

Olaf Lorbach · Matthias Kieb · Christoph Dornick · Mirco Herbolt · Imke Weyers · Michael Raschke · Martin Engelhardt

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Purpose To evaluate knee laxity after anatomic ACL reconstruction with additional suture repair of a medial meniscus tear.

Methods Kinematics of the intact knee were determined in 12 human cadaver specimens in response to a 134-N anterior tibial load (aTT) and a combined rotatory load of 10 Nm valgus and 4 Nm internal tibial rotation (aTTPS) using a robotic/universal force moment sensor testing system. Subsequently, the ACL was resected following the creation of a standardized tear of the medial meniscus, a standard meniscus repair and an ACL reconstruction using an anatomic single-bundle (6) or an anatomic double-bundle technique (6). Knee kinematics were determined following every sub-step.

Results Significant increase of aTT in the ACL-deficient knee was found ($p \leq 0.001$) with a further increase in the ACL-deficient knee with additional medial meniscal

rupture ($p \leq 0.001$). ACL reconstructions significantly decreased aTT compared with the ACL and meniscus-ruptured knee. No significant differences were seen between the intact knee and the ACL-reconstructed knee with additional meniscal repair ($p < 0.05$). In response to a simulated pivot shift, aTTPS in the intact knee significantly increased in the ACL-deficient knee and meniscus-ruptured knee ($p = 0.005$). No significant differences in knee kinematics were found between SB as well as DB ACL reconstruction with additional medial meniscal repair compared with the intact knee. Comparison of SB versus DB ACL reconstruction did not reveal any significant differences in a simulated Lachman test or simulated pivot shift test (n.s.).

Conclusions aTT as well as aTTPS significantly increased with ACL deficiency compared with the intact knee; additional medial meniscal rupture further increased aTT. Anatomic ACL reconstruction with medial meniscal repair did not reveal significant differences in knee kinematics compared with the intact knee. Comparison of anatomic SB versus DB ACL reconstruction with additional repair of the medial meniscus did not show significant differences neither in a simulated Lachman nor in a simulated pivot shift test.

Keywords ACL · Meniscus · Knee laxity · Meniscus repair · ACL reconstruction

Introduction

The clinical and biomechanical results after ACL reconstruction using single-bundle versus double-bundle techniques remain controversial. Superior results were described in several papers for the double-bundle technique

Transfer informací k veřejnosti

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Zpracované překlady vybraných zahraničních vědeckých prací a článků

JAMA

Účinnost vakcíny Pfizer/BioNTech v závislosti na věku očkovaného

23.8.2021

O tom, jak se mění účinnost vakcíny Pfizer/BioNTech proti nemoci COVID-19 v závislosti na věku očkovaného, publikoval studii časopis The Journal of the American Medical Association.

JAMA

Trpí děti dlouhodobými příznaky COVIDu-19?

29.7.2021

Jak často děti po nákaze nemoci COVID-19 trpí dlouhodobými příznaky? To se rozhodli zjistit vědci ve Švýcarsku. Výsledky studie publikoval časopis The Journal of the American Medical Association.

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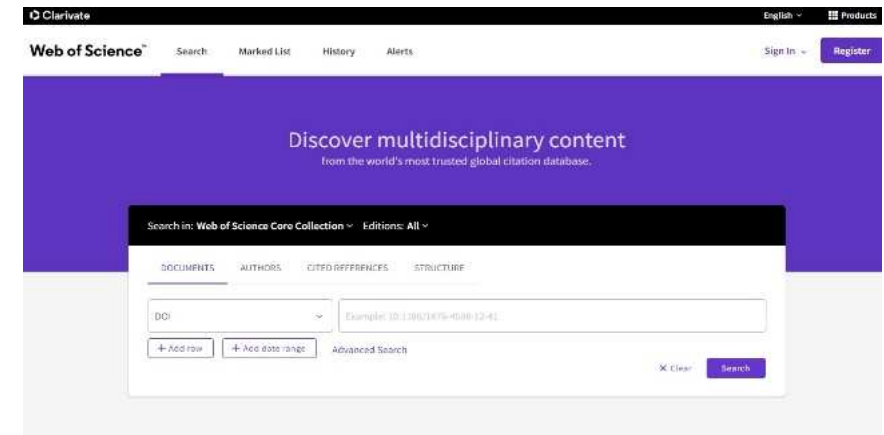
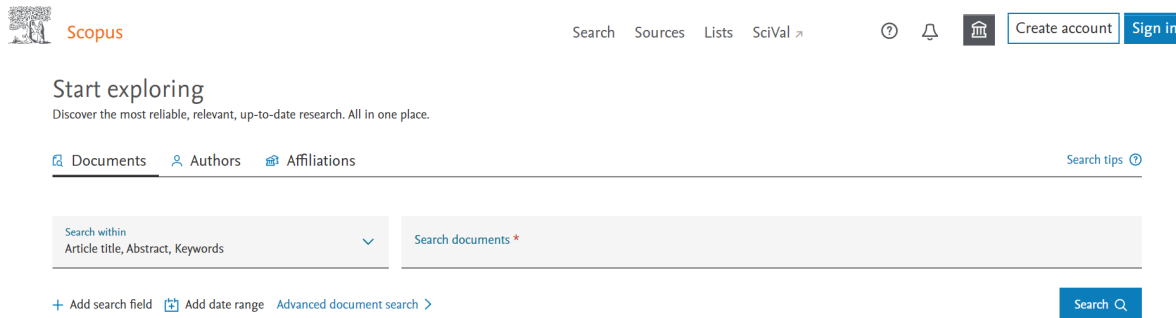
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Databáze vědeckých publikací, časopisů, scientometrie

Scientometrie: hodnocení vědeckých výstupů na základě citačních ohlasů



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článek

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Databáze



knee Inst Sports Traumatol Arthrosc (2015) 21:2714–2714
 DOI 10.1007/s00141-014-1074-8

Biomechanical evaluation of knee kinematics after anatomic single- and anatomic double-bundle ACL reconstructions with medial meniscal repair

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Received: 4 December 2013 / Accepted: 6 May 2014 / Published online: 22 May 2014
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Abstract
Purpose: To evaluate knee laxity after anatomic ACL reconstruction with additional suture repair of a medial meniscus tear.
Method: Kinematics of the intact knee were determined in 12 human cadaver specimens in response to a 136-N anterior tibial load (aTT) and a combined rotary load of 10 Nm valgus and 4 Nm internal tibial rotation (iTTFS) using a robot-driven force moment sensor testing system. Subsequently, the ACL was resected following the creation of a standardized tear of the medial meniscus, a standard meniscus repair and an ACL reconstruction using an anatomic single-bundle (S) or an anatomic double-bundle technique (DB). Knee kinematics were determined following every sub-step.
Results: Significant increases of aTT in the ACL-deficient knee was found ($p < 0.001$) with a further increase in the ACL-deficient knee with additional medial meniscus repair ($p < 0.001$). ACL reconstructions significantly decreased aTT compared with the ACL and meniscus-repaired knee. No significant differences were seen between the intact knee and the ACL-reconstructed knee with additional meniscal repair ($p < 0.05$). In response to a simulated pivot shift, aTTFS in the intact knee significantly increased in the ACL-deficient knee and meniscus-repaired knee ($p = 0.005$). No significant differences in knee kinematics were found between SII as well as DB ACL reconstruction with additional medial meniscal repair compared with the intact knee. Comparison of SII versus DB ACL reconstruction did not reveal any significant differences in a simulated Lachman test or simulated pivot shift test (n.s.).
Conclusions: aTT as well as iTTFS significantly increased with ACL deficiency compared with the intact knee; additional medial meniscal repairs further increased aTT. Anatomic ACL reconstruction with medial meniscal repair did not reveal significant differences in knee kinematics compared with the intact knee. Comparison of anatomic SII versus DB ACL reconstruction with additional repair of the medial meniscus did not show significant differences neither in a simulated Lachman nor in a simulated pivot shift test.

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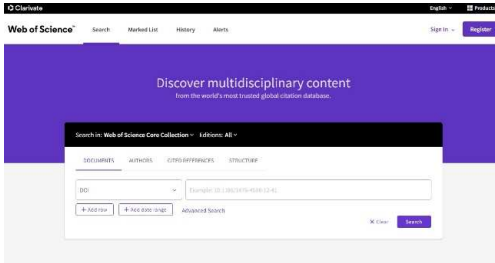
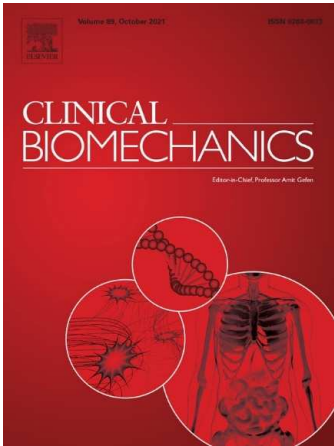
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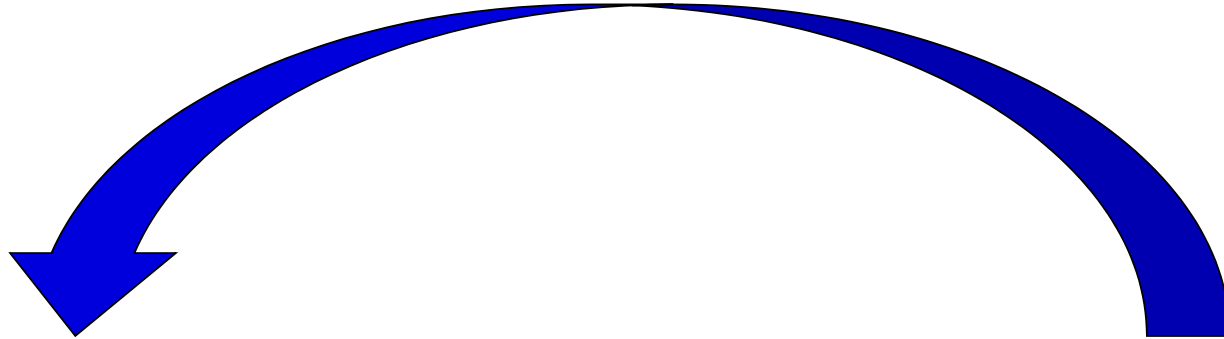
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Publikace/
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Databáze

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DOI 10.1007/s00141-014-3071-9

KNEE

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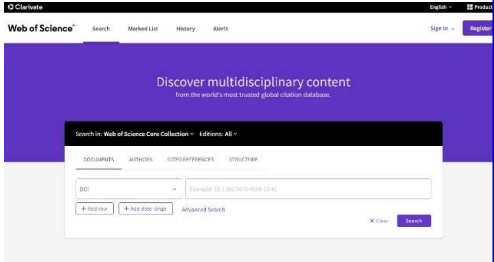
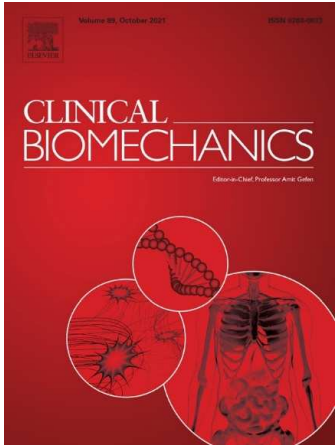
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Keywords ACL · Meniscus · Knee laxity · Meniscus repair · ACL reconstruction

Introduction The clinical and biomechanical results after ACL reconstruction using single-bundle versus double-bundle techniques remain controversial. Superior results were described in several papers for the double-bundle technique

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