

JOURNAL OF ORTHOPAEDIC SCIENCE

Official Journal of The Japanese Orthopaedic Association

Volume 23, Issue 2, March 2018

Table of Contents

Editorial

- Contribution to the aged society: Prevention of osteoporotic fragility fractures in the elderly 205
Naoto Endo

Instructional Lectures

- Rotator cuff tendon-to-bone healing at 12 months after patch grafting of acellular dermal matrix in an animal model 207
Junji Ide, Takuya Tokunaga

- Diagnosis and treatment of osteochondritis dissecans of the humeral capitellum 213
Masahiro Maruyama, Masatoshi Takahara, Hiroshi Satake

- Diagnosis and treatment of slipped capital femoral epiphysis: Recent trends to note 220
Takuya Otani, Yasuhiko Kawaguchi, Keishi Marumo

Review Article

- State-of-the-art transforaminal percutaneous endoscopic lumbar surgery under local anesthesia: 229
Discectomy, foraminoplasty, and ventral facetectomy
Koichi Sairyo, Takashi Chikawa, Akihiro Nagamachi

Original Articles

Spine

- Morphological changes of vertebral compression fracture with intra-vertebral cleft treated with 237
percutaneous vertebroplasty
*Sang-Min Park, Jae-Woo Park, Hyoungmin Kim, Ho-Joong Kim, Jin S. Yeom, Choon-Ki Lee,
Bong-Soon Chang*

- Mid-term results of computer-assisted skip pedicle screw fixation for patients with Lenke type 248
1 and 2 adolescent idiopathic scoliosis: A minimum five-year follow-up study
*Masashi Uehara, Jun Takahashi, Shota Ikegami, Shugo Kuraishi, Toshimasa Futatsugi, Hiroki Oba,
Michihiko Koseki, Hiroyuki Kato*

- Compensatory mechanism of the spine after corrective surgery without lumbar-sacral fixation 253
for traumatic thoracolumbar kyphotic spine deformity
*Koji Matsumoto, Masahiro Hoshino, Keita Omori, Hidetoshi Igarashi, Takashi Tsuruta, Koji Yamasaki,
Hiromi Matsuzaki, Takanori Iriuchishima, Yasuaki Tokuhashi*

Effect of two-level pedicle-screw fixation with different rod materials on lumbar spine: A finite element study <i>Jayanta Kumar Biswas, Masud Rana, Santanu Majumder, Santanu Kumar Karmakar, Amit Roychowdhury</i>	258
Efficacy of intraoperative lumbar subarachnoid drainage for prevention of cerebrospinal fluid leak after spinal cord tumor resection <i>Kazuyoshi Kobayashi, Kei Ando, Kenyu Ito, Mikito Tsushima, Akiyuki Matsumoto, Masayoshi Morozumi, Satoshi Tanaka, Masaaki Machino, Naoki Ishiguro, Shiro Imagama</i>	266
Descriptive epidemiology of traumatic spinal injury in Japan <i>Mahammad Abbas Tafida, Yukiko Wagatsuma, Enbo Ma, Taro Mizutani, Toshikazu Abe</i>	273
Associations between neck symptoms and LDL cholesterol in a cross-sectional population-based study <i>Gentaro Kumagai, Kanichiro Wada, Toshihiro Tanaka, Hitoshi Kudo, Toru Asari, Daisuke Chiba, Seiya Ota, Shigeyuki Nakaji, Yasuyuki Ishibashi</i>	277
Unilateral repetitive tibial nerve stimulation improves neurogenic claudication and bilateral F-wave conduction in central lumbar spinal stenosis <i>Noritsuna Nakajima, Toshikazu Tani, Katsuhito Kiyasu, Masashi Kumon, Shinichirou Taniguchi, Ryuichi Takemasa, Nobuaki Tadokoro, Kazuya Nishida, Masahiko Ikeuchi</i>	282
The position of the aorta relative to the spine in patients with Pott's thoracolumbar angular kyphosis <i>Yan Liang, Yongfei Zhao, Haiying Liu, Zheng Wang</i>	289
Posterior spinal fusion for scoliosis after Fontan procedure: A case series <i>Masashi Uehara, Jun Takahashi, Yohei Akazawa, Shugo Kuraishi, Shota Ikegami, Toshimasa Futatsugi, Hiroki Oba, Hiroyuki Kato</i>	294
Cost-effectiveness of posterior lumbar interbody fusion in the Japanese universal health insurance system <i>Takahito Fujimori, Toshitada Miwa, Motoki Iwasaki, Takenori Oda</i>	299
Upper Extremity	
The high frequency of superior labrum, biceps tendon, and superior rotator cuff pathologies in patients with subscapularis tears: A cohort study <i>Muhammet Baybars Ataoglu, Mehmet Cetinkaya, Mustafa Ozer, Tacettin Ayanoglu, Ulunay Kanatli</i>	304
Is digital photography an accurate and precise method for measuring range of motion of the shoulder and elbow? <i>Russell R. Russo, Matthew B. Burn, Sabir K. Ismaily, Brayden J. Gerrie, Shuyang Han, Jerry Alexander, Christopher Lenherr, Philip C. Noble, Joshua D. Harris, Patrick C. McCulloch</i>	310
Lower Extremity	
Treatment status and radiographic features of patients with atypical femoral fractures <i>Hiroshi Hagino, Naoto Endo, Tetsuji Yamamoto, Atsushi Harada, Jun Iwamoto, Naoki Kondo, Tasuku Mashiba, Satoshi Mori, Junichi Nakamura, Seiji Ohtori, Akinori Sakai, Junichi Takada, Yoshiharu Kato</i>	316

Bioabsorbable magnesium versus standard titanium compression screws for fixation of distal metatarsal osteotomies – 3 year results of a randomized clinical trial <i>Christian Plaass, Christian von Falck, Sarah Ettinger, Lena Sonnow, Franco Calderone, Andreas Weizbauer, Janin Reifenrath, Leif Claassen, Hazibullah Waizy, Kiriakos Daniilidis, Christina Stukenborg-Colsman, Henning Windhagen</i>	321
Evaluation of muscle activity just after straight leg raising exercise by using ¹⁸ FDG-PET <i>Hiroyuki Shiozawa, Takashi Ohsawa, Yoshito Tsushima, Tetsuya Higuchi, Kenji Takagishi, Hirotaka Chikuda</i>	328
Association between sleep disturbance and new-onset subjective knee pain in Great East Japan Earthquake survivors: A prospective cohort study in the Miyagi prefecture <i>Yoshihiro Hagiwara, Takuya Sekiguchi, Yumi Sugawara, Yutaka Yabe, Masashi Koide, Nobuyuki Itaya, Shinichiro Yoshida, Yasuhito Sogi, Masahiro Tsuchiya, Ichiro Tsuji, Eiji Ito</i>	334
Ilizarov technique: Bone transport versus bone shortening-lengthening for tibial bone and soft-tissue defects <i>Yongwei Wu, Qudong Yin, Yongjun Rui, Zhenzhong Sun, Sanjun Gu</i>	341
Patient-reported outcomes in patients who undergo total hip arthroplasty after periacetabular osteotomy <i>Yusuke Osawa, Yukiharu Hasegawa, Taisuke Seki, Yasuhiko Takegami, Takafumi Amano, Naoki Ishiguro</i>	346
Posteriorly inserted anterior cruciate ligament in knees with discoid lateral meniscus corresponding to bony morphological characteristics of femoral lateral condyle <i>Takao Minami, Hideyuki Koga, Ichiro Sekiya, Toshifumi Watanabe, Masafumi Horie, Hiroki Katagiri, Koji Otabe, Toshiyuki Ohara, Mai Katakura, Takeshi Muneta</i>	350
Effectiveness of various hip preservation treatments for non-traumatic osteonecrosis of the femoral head: A network meta-analysis of randomized controlled trials <i>Xiao Yu, Difeng Zhang, Xianjun Chen, Ji Yang, Lin Shi, Qingjiang Pang</i>	356
Long-term results of total hip arthroplasty using Charnley Elite-Plus stem and the effect of stem geometry on radiographic distal femoral cortical hypertrophy <i>Koji Goto, Yuki Furuya, Kazuhiro Oda, Ryosuke Minami, Kaori Sano, Masayuki Sugimoto, Shuichi Matsuda</i>	365
In-vivo postoperative motion analysis of metal and ceramic bipolar hip hemiarthroplasty <i>Toru Yoshioka, Nobukazu Okimoto, Yoshifumi Fuse, Makoto Kawasaki, Toshiharu Mori, Akinori Sakai, Tokifumi Majima</i>	371
Anatomic feature of deltoid ligament attachment in posteromedial osteochondral lesion of talar dome <i>Tomoyuki Nakasa, Mikiya Sawa, Yasunari Ikuta, Masahiro Yoshikawa, Yusuke Tsuyuguchi, Nobuo Adachi</i>	377
Trauma	
Clinical experience with three-dimensional printing techniques in orthopedic trauma <i>Ji Wan Kim, Yongkoo Lee, Joonho Seo, Jai Hyung Park, Yong Min Seo, Sung Soo Kim, Hyun Chul Shon</i>	383
Paediatric	
Ultrasonographic evaluation of changes in the muscle architecture of the gastrocnemius with botulinum toxin treatment for lower extremity spasticity in children with cerebral palsy <i>Akihiro Kawano, Taichiro Yanagizono, Ichiro Kadouchi, Tetsuya Umezaki, Etsuo Chosa</i>	389

Oncology

- Predicting pathological fracture in femoral metastases using a clinical CT scan based algorithm: 394
A case-control study
Stein J. Janssen, Nuno Rui Paulino Pereira, Timion A. Meijis, Miriam A. Bredella, Marco L. Ferrone, C. Niek van Dijk, Jos A.M. Bramer, Santiago A. Lozano-Calderón, Joseph H. Schwab

- Preoperative evaluation of intraoperative blood loss during malignant soft tissue tumor resection by ultrasonography 403
Takeshi Morii, Tomonori Kishino, Naoko Shimamori, Mitsue Motohashi, Hiroaki Ohnishi, Keita Honya, Takayuki Aoyagi, Takashi Tajima, Shoichi Ichimura

- Preliminary algorithm for differential diagnosis between spinal meningioma and schwannoma using plain magnetic resonance imaging 408
Eiichiro Iwata, Hideki Shigematsu, Yusuke Yamamoto, Sachiko Kawasaki, Masato Tanaka, Akinori Okuda, Yasuhiko Morimoto, Keisuke Masuda, Munehisa Koizumi, Manabu Akahane, Yasuhito Tanaka

Basic Research

- Relationship between neuropathy proximal to the suprascapular nerve and rotator cuff tear in a rodent model 414
Yasuhito Sasaki, Nobuyasu Ochiai, Eiko Hashimoto, Yu Sasaki, Takeshi Yamaguchi, Takehiro Kijima, Koji Akimoto, Seiji Ohtori, Kazuhisa Takahashi

Case Reports

- Ankle fracture as a complication of hip arthroscopy: A case report 420
Kensuke Fukushima, Naonobu Takahira, Katsufumi Uchiyama, Mitsutoshi Moriya, Takeaki Yamamoto, Masashi Takaso

- Femoral neck fracture and central migration of the artificial femoral head after carbon ion radiotherapy for chondrosarcoma in the pelvis 424
Nobuhiko Sumiyoshi, Tomoaki Torigoe, Katsuhiko Maezawa, Yasuhiro Narushima, Yuichiro Maruyama, Kazuo Kaneko, Reiko Imai, Tadashi Kamada

- Rare case of small size Extraskeletal Ewing Sarcoma arising from the median nerve with paresthesia 430
Khodamorad Jamshidi, Alireza Mirzaei, Abolfazl Bagherifard, Mehrdad Bahrabadi

- Chondrosarcoma of the small toe in an adult with Down syndrome 433
Chiaki Sato, Michiro Susa, Yu Nakamura, Takahiro Nakagawa, Hajime Rikitake, Yuji Kuroyanagi, Akiko Matsubara, Hitoshi Tsuda, Koichi Nemoto, Kazuhiro Chiba