

JOURNAL OF ORTHOPAEDIC SCIENCE

Official Journal of The Japanese Orthopaedic Association

Volume 24, Issue 5, September 2019

Table of Contents

Editorial

- Integrating basic knowledge and clinical ability 763
Shin-ichi Konno

Review Article

- Current therapeutic modalities and newly designed gene therapy for refractory sarcomas 764
Setsuro Komiya, Satoshi Nagano, Takao Setoguchi

Original Articles

Spine

- The onset of deep abdominal muscles activity during tasks with different trunk rotational torques in subjects with non-specific chronic low back pain 770
Satoshi Osuka, Yuta Koshino, Masanori Yamanaka, Takuya Miura, Yuki Saito, Ryo Ueno, Tomoya Ishida, Mina Samukawa, Harukazu Tohyama

- Scheuermann's disease in patients 15–40 years old: A study to determine its prevalence and its relationship with age and sex using chest radiographs as screening tool 776
Julio Urrutia, Felipe Narvaez, Pablo Besa, Arturo Meissner-Haecker, Clemente Rios, Cristobal Piza

- Differential rod contouring on thoracolumbar/lumbar curvature in patients with adolescent idiopathic scoliosis: An analysis with intraoperative acquisition of three-dimensional imaging 780
Shoji Seki, Yasuhito Yahara, Hiroto Makino, Kenji Kobayashi, Masato Nakano, Norikazu Hirano, Kei Watanabe, Jun Takahashi, Yoshiharu Kawaguchi, Tomoatsu Kimura

- Stride length of elderly patients with lumbar spinal stenosis: Multi-center study using the Two-Step test 787
Nobuyuki Fujita, Aiko Sakurai, Azusa Miyamoto, Takehiro Michikawa, Yohei Otaka, Satoshi Suzuki, Osahiko Tsuji, Narihito Nagoshi, Eijiro Okada, Mitsuru Yagi, Takashi Tsuji, Hitoshi Kono, Ken Ishii, Masaya Nakamura, Morio Matsumoto, Kota Watanabe

- Spino-pelvic- lower extremity balance during walking in elderly patients with spinal kyphosis 793
Kumi Kamata, Hiroshi Ozawa, Yusuke Sekiguchi, Toshimi Aizawa, Shinichi Izumi, Eiji Itoi

- Multicenter cross-sectional study of the clinical features and types of treatment of spinal cord-related pain syndrome 798
Hideaki Nakajima, Kenzo Uchida, Toshihiko Taguchi, Toshihiko Yamashita, Toshikatsu Tominaga, Masato Tanaka, Masatsune Yamagata, Takashi Kaito, Takahiro Ushida

- Cost-effectiveness analysis of the pharmacological management of chronic low back pain with four leading drugs 805
Takashi Kaito, Yukihiko Matsuyama, Toshihiko Yamashita, Mamoru Kawakami, Kazuhisa Takahashi, Munehito Yoshida, Shiro Imagama, Seiji Ohtori, Toshihiko Taguchi, Hirotaka Haro, Hiroshi Taneichi, Masashi Yamazaki, Gen Inoue, Kotaro Nishida, Hiroshi Yamada, Daijiro Kabata, Ayumi Shintani, Motoki Iwasaki, Manabu Ito, Naohisa Miyakoshi, Hideki Murakami, Kazuo Yonenobu, Tomoyuki Takura, Joji Mochida, The Project Committee of the Japanese Society for Spine Surgery and Related Research (JSSR)

Upper Extremity: Shoulder

Video examination via the smartphone: A reliable tool for shoulder function assessment using the constant score 812
Yariv Goldstein, Haggai Schermann, Oleg Dolkart, Efi Kazum, Alon Rabin, Eran Maman, Ofir Chechik

Analysis of risk factors for loss of reduction after acromioclavicular joint dislocation treated with the suture-button 817
Liao-Jun Sun, Di Lu, Zhen-Yu Tao, Xian-Bin Yu, Wei Hu, Yun-Fei Ma, Bin Yu

Lower Extremity: Hip-Knee

Does the hepatitis C virus affect the outcomes of total joint arthroplasty? A meta-analysis of ten studies 822
Wuzeng Wei, Tianshen Liu, Jie Zhao, Bing Li, Shuai Li, Jun Liu

Lower Extremity: Hip

The influence of pre-operative antiplatelet and anticoagulant agents on the outcomes in elderly patients undergoing early surgery for hip fracture 830
Ken Ueoka, Takeshi Sawaguchi, Kenichi Goshima, Kenji Shigemoto, Shintaro Iwai, Akira Nakanishi

Clinical characteristics of osteoporotic second hip fracture: From the data of Clinical Pathway with Regional Alliance in rural region in Japan 836
Ichiro Yoshii, Kenichi Kitaoka, Kyuichi Hashimoto

Effect of a synthetic osteoconductive bone graft substitute with zeta potential control (geneX[®]ds) in the treatment of intertrochanteric fracture: A single center experience of 115 consecutive proximal femoral nail antirotations 842
Won Chul Shin, Jae Hoon Jang, Jae Yoon Jeong, Kuen Tak Suh, Nam Hoon Moon

Mortality and its risk factors in nonagenarians after hip fractures 850
Jin-Woo Kim, Dong-Hyun Kim, Eui-Chan Jang, Young-Kyun Lee, Kyung-Hoi Koo, Yong-Chan Ha

Lower Extremity: Knee

Patient reported outcomes after high tibial osteotomy show comparable results at different ages in the mid-term to long-term follow-up 855
Umito Kuwashima, Ken Okazaki, Kenyu Iwasaki, Yukio Akasaki, Hideya Kawamura, Hideki Mizu-uchi, Satoshi Hamai, Yasuharu Nakashima

Tibial tunnel enlargement after anatomic anterior cruciate ligament reconstruction with a bone-patellar tendon-bone graft. Part 1: Morphological change in the tibial tunnel 861
Tomoki Ohori, Tatsuo Mae, Konsei Shino, Yuta Tachibana, Hideki Yoshikawa, Ken Nakata

Medial meniscal extrusion and spontaneous osteonecrosis of the knee 867
Shuhei Oda, Akifumi Fujita, Hiromitsu Moriuchi, Yoshinori Okamoto, Shuhei Otsuki, Masashi Neo

Lower Extremity

Analysis of skeletal-muscle condition after excessive loading of the lower legs by sequential magnetic resonance imaging 873
Junichi Hata, Kazuki Endo, Osahiko Tsuji, Shota Arakawa, Masakazu Sato, Kazuo Yagi, Kanehiro Fujiyoshi, Hideyuki Okano, Masaya Nakamura

Trauma

The management of degloving injuries of the limb with full thickness skin grafting using vacuum sealing drainage or traditional compression dressing: A comparative cohort study 881
Kaizong Yuan, Bin Zhao, Tokai Cooper, Zeyuan Jin, Xijie Zhou, Xinglong Chen, Zhijie Li, Weiyang Gao, Hede Yan

Clinical outcome of conversion from external fixation to definitive internal fixation for open fracture of the lower limb 888
Tomohiro Matsumura, Tsuneari Takahashi, Osamu Miyamoto, Tomohiro Saito, Atsushi Kimura, Katsushi Takeshita

Paediatric

- Age-related change and gender differences in pelvic morphology of healthy children 894
Masanori Wako, Kensuke Koyama, Yoshihiro Takayama, Yoshihito Aikawa, Hirotaka Haro

Oncology

- Infiltrative nature of tumor-induced osteomalacia lesions in bone: Correlation between radiological and histopathological features 900
Hiroshi Kobayashi, Naohiro Makise, Tetsuo Ushiku, Nobuaki Ito, Minae Koga, Yusuke Shinoda, Sakae Tanaka

Locomotive syndrome and Related Research

- Association between speed of sound of calcaneal bone assessed by quantitative ultrasound and sarcopenia in a general older adult population: A cross-sectional study 906
Hiromi Matsumoto, Chika Tanimura, Shinji Tanishima, Hiroshi Hagino

- Increasing postural sway in balance test is related to locomotive syndrome risk: A cross-sectional study 912
Satoshi Tanaka, Kei Ando, Kazuyoshi Kobayashi, Tetsuro Hida, Taisuke Seki, Takashi Hamada, Kenyu Ito, Mikito Tsushima, Masayoshi Morozumi, Masaaki Machino, Kyotaro Ota, Naoki Ishiguro, Yukiharu Hasegawa, Shiro Imagama

Basic Research

- Mesenchymal stem cells isolated from both distal femurs of patients with unilateral trauma or osteoarthritis of the knee exhibit similar *in-vitro* ability of bone formation 918
Casper Falster, Simon Stockmann Poulsen, Arne Michael Storaas, Henrik Morville Schroeder, Jesper Hoeg Vinther, Moustapha Kassem, Uffe Joergensen

- IL-1 β mediates NGF and COX-2 expression through transforming growth factor-activating kinase 1 in subacromial bursa cells derived from rotator cuff tear patients 925
Naoshige Nagura, Kentaro Uchida, Tomonori Kenmoku, Gen Inoue, Mitsufumi Nakawaki, Masayuki Miyagi, Masashi Takaso

Case Reports

- Successful treatment of adult pleomorphic rhabdomyosarcoma with bone invasion in the lower leg by chemotherapy and biological reconstruction: A case report 930
Atsushi Tanaka, Yasuo Yoshimura, Takashige Momose, Ken'ichi Isobe, Kaoru Aoki, Munehisa Kito, Masanori Okamoto, Shuichiro Suzuki, Kenji Sano, Hiroyuki Kato

- Persistent noise after ceramic-on-ceramic total hip replacement due to bearing coupling size mismatch: A case report 936
Chee-Ken Chan, Dong-Hyun Lee, Taek-Rim Yoon, Kyung-Soon Park

- Bow-hunter's syndrome due to left C7 schwannoma in a patient with bilateral absence of the posterior inferior cerebellar artery 939
Masanao Mori, Hitoshi Yamahata, Satoshi Yamaguchi, Tadaaki Niuro, Masamichi Atsuchi, Junji Kasuya, Hiroshi Tokimura, Kazunori Arita

- Single-plane rotational osteotomy for cubitus varus deformity based on preoperative computer simulation 945
Kunihiro Oka, Tsuyoshi Murase, Kiyoshi Okada, Hiroyuki Tanaka, Hideki Yoshikawa

Letter to the Editor

- Comment on Hamamoto et al.: Cross-cultural adaptation and validation of the Japanese version of the new knee society scoring system for osteoarthritic knee with total knee arthroplasty 952
Mahmut Enes Kayaalp

- Reply to the letter to the editor by Kayaalp 954
Shuichi Matsuda