

Takahiro Niikura

List of Publications by Year in descending order

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Version: 2024-02-01

92
papers

1,304
citations

430874

18
h-index

434195

31
g-index

96
all docs

96
docs citations

96
times ranked

1462
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Global gene profiling reveals a downregulation of BMP gene expression in experimental atrophic nonunions compared to standard healing fractures. <i>Journal of Orthopaedic Research</i> , 2006, 24, 1463-1471. | 2.3 | 106 |
| 2 | Exploratory clinical trial on the safety and bactericidal effect of 222-nm ultraviolet C irradiation in healthy humans. <i>PLoS ONE</i> , 2020, 15, e0235948. | 2.5 | 85 |
| 3 | Profiling microRNA expression during fracture healing. <i>BMC Musculoskeletal Disorders</i> , 2016, 17, 83. | 1.9 | 70 |
| 4 | Causative factors of fracture nonunion: the proportions of mechanical, biological, patient-dependent, and patient-independent factors. <i>Journal of Orthopaedic Science</i> , 2014, 19, 120-124. | 1.1 | 68 |
| 5 | A Novel System for Transcutaneous Application of Carbon Dioxide Causing an "Artificial Bohr Effect" in the Human Body. <i>PLoS ONE</i> , 2011, 6, e24137. | 2.5 | 67 |
| 6 | Human hypertrophic nonunion tissue contains mesenchymal progenitor cells with multilineage capacity in vitro. <i>Journal of Orthopaedic Research</i> , 2009, 27, 208-215. | 2.3 | 46 |
| 7 | The effect of transcutaneous application of carbon dioxide (CO ₂) on skeletal muscle. <i>Biochemical and Biophysical Research Communications</i> , 2011, 407, 148-152. | 2.1 | 46 |
| 8 | Local Transplantation of G-CSF-Mobilized CD34+ Cells in a Patient with Tibial Nonunion: A Case Report. <i>Cell Transplantation</i> , 2011, 20, 1491-1496. | 2.5 | 40 |
| 9 | Tactile Surgical Navigation System for Complex Acetabular Fracture Surgery. <i>Orthopedics</i> , 2014, 37, 237-242. | 1.1 | 38 |
| 10 | A Piezo1/KLF15/IL-6 axis mediates immobilization-induced muscle atrophy. <i>Journal of Clinical Investigation</i> , 2022, 132, 1-13. | 8.2 | 31 |
| 11 | Breakage of a Third Generation Gamma Nail: A Case Report and Review of the Literature. <i>Case Reports in Orthopedics</i> , 2013, 2013, 1-5. | 0.3 | 28 |
| 12 | Rare non-traumatic periprosthetic femoral fracture with features of an atypical femoral fracture: a case report. <i>Journal of Medical Case Reports</i> , 2015, 9, 103. | 0.8 | 28 |
| 13 | Comparison of Radiographic Appearance and Bone Scintigraphy in Fracture Nonunions. <i>Orthopedics</i> , 2014, 37, e44-50. | 1.1 | 24 |
| 14 | Topical Cutaneous CO ₂ Application by Means of a Novel Hydrogel Accelerates Fracture Repair in Rats. <i>Journal of Bone and Joint Surgery - Series A</i> , 2014, 96, 2077-2084. | 3.0 | 22 |
| 15 | Vancomycin-impregnated Calcium Phosphate Cement for Methicillin-resistant <i>Staphylococcus aureus</i> Femoral Osteomyelitis. <i>Orthopedics</i> , 2007, 30, 320-321. | 1.1 | 22 |
| 16 | Assessment of posterior shoulder muscle stiffness related to posterior shoulder tightness in college baseball players using shear wave elastography. <i>Journal of Shoulder and Elbow Surgery</i> , 2020, 29, 571-577. | 2.6 | 20 |
| 17 | Incidence of venous thromboembolism in pelvic and acetabular fractures in the Japanese population. <i>Journal of Orthopaedic Science</i> , 2012, 17, 233-238. | 1.1 | 19 |
| 18 | Effect of Low-Intensity Pulsed Ultrasound on Bone Morphogenetic Protein 7-Induced Osteogenic Differentiation of Human Nonunion Tissue-Derived Cells In Vitro. <i>Journal of Ultrasound in Medicine</i> , 2013, 32, 915-922. | 1.7 | 19 |

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|----|---|-----|-----------|
| 19 | Transcutaneous carbon dioxide application accelerates muscle injury repair in rat models. <i>International Orthopaedics</i> , 2017, 41, 1007-1015. | 1.9 | 19 |
| 20 | Low-Intensity Pulsed Ultrasound Enhances BMP-7-Induced Osteogenic Differentiation of Human Fracture Hematoma-Derived Progenitor Cells In Vitro. <i>Journal of Orthopaedic Trauma</i> , 2013, 27, 29-33. | 1.4 | 18 |
| 21 | D-dimer levels to screen for venous thromboembolism in patients with fractures caused by high-energy injuries. <i>Journal of Orthopaedic Science</i> , 2015, 20, 682-688. | 1.1 | 17 |
| 22 | Escherichia coli-derived BMP-2-absorbed β -TCP granules induce bone regeneration in rabbit critical-sized femoral segmental defects. <i>International Orthopaedics</i> , 2019, 43, 1247-1253. | 1.9 | 17 |
| 23 | The Influences of Chronicity and Meniscal Injuries on Pivot Shift in Anterior Cruciate Ligament-Deficient Knees: Quantitative Evaluation Using an Electromagnetic Measurement System. <i>Arthroscopy - Journal of Arthroscopic and Related Surgery</i> , 2020, 36, 1398-1406. | 2.7 | 17 |
| 24 | Antibiotic-impregnated calcium phosphate cement as part of a comprehensive treatment for patients with established orthopaedic infection. <i>Journal of Orthopaedic Science</i> , 2016, 21, 539-545. | 1.1 | 16 |
| 25 | Differential gene expression and immunolocalization of insulin-like growth factors and insulin-like growth factor binding proteins between experimental nonunions and standard healing fractures. <i>Journal of Orthopaedic Research</i> , 2011, 29, 1820-1826. | 2.3 | 15 |
| 26 | Efficient derivation of osteoprogenitor cells from induced pluripotent stem cells for bone regeneration. <i>International Orthopaedics</i> , 2014, 38, 1779-1785. | 1.9 | 14 |
| 27 | Thrombin-antithrombin III complex tests. <i>Journal of Orthopaedic Surgery</i> , 2017, 25, 017084061668450. | 1.0 | 14 |
| 28 | Triweekly administration of parathyroid hormone (1α -34) accelerates bone healing in a rat refractory fracture model. <i>BMC Musculoskeletal Disorders</i> , 2017, 18, 545. | 1.9 | 14 |
| 29 | Missed Massive Morel-Lavallee Lesion. <i>Case Reports in Orthopedics</i> , 2014, 2014, 1-4. | 0.3 | 13 |
| 30 | Improved implant alignment accuracy with an accelerometer-based portable navigation system in medial unicompartmental knee arthroplasty. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2020, 28, 2917-2923. | 4.2 | 13 |
| 31 | Cryopreserved human adipose-derived stromal vascular fraction maintains fracture healing potential via angiogenesis and osteogenesis in an immunodeficient rat model. <i>Stem Cell Research and Therapy</i> , 2021, 12, 110. | 5.5 | 13 |
| 32 | Comparison of plantar pressure distribution during walking and lower limb alignment between modified kinematically and mechanically aligned total knee arthroplasty. <i>Journal of Biomechanics</i> , 2021, 120, 110379. | 2.1 | 13 |
| 33 | Rate of Venous Thromboembolism after Complex Lower-Limb Fracture Surgery without Pharmacological Prophylaxis. <i>Journal of Orthopaedic Surgery</i> , 2015, 23, 37-40. | 1.0 | 12 |
| 34 | Intra-medullary antibiotics perfusion (iMAP) for the control of fracture-related infection early after osteosynthesis. <i>Journal of Orthopaedic Surgery</i> , 2021, 29, 230949902110514. | 1.0 | 12 |
| 35 | Venous Thromboembolism in Japanese Patients with Fractures of the Pelvis and/or Lower Extremities Using Physical Prophylaxis Alone. <i>Journal of Orthopaedic Surgery</i> , 2012, 20, 196-200. | 1.0 | 11 |
| 36 | The medial tibial joint line elevation over 5mm restrained the improvement of knee extension angle in unicompartmental knee arthroplasty. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2018, 26, 1737-1742. | 4.2 | 11 |

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|----|---|-----|-----------|
| 37 | Larger Acetabular Labrum Is Associated With Hip Dysplasia, Joint Incongruence, and Clinical Symptoms. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2020, 36, 2446-2453. | 2.7 | 11 |
| 38 | Altered microRNA profile during fracture healing in rats with diabetes. Journal of Orthopaedic Surgery and Research, 2020, 15, 135. | 2.3 | 11 |
| 39 | Bicondylar Hoffa Fracture Successfully Treated with Headless Compression Screws. Case Reports in Orthopedics, 2014, 2014, 1-4. | 0.3 | 10 |
| 40 | Human pseudoarthrosis tissue contains cells with osteogenic potential. Injury, 2016, 47, 1184-1190. | 1.7 | 10 |
| 41 | Locking plate osteosynthesis for a femoral fracture and subsequent nonunion in a patient with osteopetrosis. International Journal of Surgery Case Reports, 2018, 51, 395-399. | 0.6 | 10 |
| 42 | Insufficiency and deficiency of vitamin D in elderly patients with fragility fractures of the hip in the Japanese population. Journal of Orthopaedic Surgery, 2019, 27, 230949901987751. | 1.0 | 10 |
| 43 | Topical cutaneous application of CO2 accelerates bone healing in a rat femoral defect model. BMC Musculoskeletal Disorders, 2019, 20, 237. | 1.9 | 10 |
| 44 | Analysis of anterior tibial subluxation to the femur at maximum extension in anterior cruciate ligament-deficient knees. Journal of Orthopaedic Surgery, 2019, 27, 230949901983360. | 1.0 | 10 |
| 45 | Continuous local antibiotic perfusion: A treatment strategy that allows implant retention in fracture-related infections. Journal of Orthopaedic Surgery, 2022, 30, 102255362211119. | 1.0 | 10 |
| 46 | Altered expression of SDF-1 and CXCR4 during fracture healing in diabetes mellitus. International Orthopaedics, 2017, 41, 1211-1217. | 1.9 | 9 |
| 47 | Increase in carbon dioxide accelerates the performance of endurance exercise in rats. Journal of Physiological Sciences, 2018, 68, 463-470. | 2.1 | 9 |
| 48 | Transcutaneous carbon dioxide application suppresses bone destruction caused by breast cancer metastasis. Oncology Reports, 2018, 40, 2079-2087. | 2.6 | 9 |
| 49 | Percutaneous CO2 Treatment Accelerates Bone Generation During Distraction Osteogenesis in Rabbits. Clinical Orthopaedics and Related Research, 2020, 478, 1922-1935. | 1.5 | 8 |
| 50 | Quantitative bone single-photon emission computed tomography imaging for uninfected nonunion: comparison of hypertrophic nonunion and non-hypertrophic nonunion. Journal of Orthopaedic Surgery and Research, 2021, 16, 125. | 2.3 | 8 |
| 51 | Histological analysis of induced membranes in patients whose bone defects were treated with the Masquelet technique to identify factors affecting the vascularity of induced membranes. Journal of Orthopaedic Surgery and Research, 2021, 16, 248. | 2.3 | 8 |
| 52 | Safety of 222 nm UVC Irradiation to the Surgical Site in a Rabbit Model. Photochemistry and Photobiology, 2022, 98, 1365-1371. | 2.5 | 8 |
| 53 | In vitro hypertrophy and calcification of human fracture haematoma-derived cells in chondrogenic differentiation. International Orthopaedics, 2013, 37, 961-967. | 1.9 | 7 |
| 54 | Outcome of Fixation for Nonunion of Extremities. Journal of Orthopaedic Surgery, 2014, 22, 309-312. | 1.0 | 7 |

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|----|---|-----|-----------|
| 55 | Backout of the Helical Blade of Proximal Femoral Nail Antirotation and Accompanying Fracture Nonunion. <i>Orthopedics</i> , 2012, 35, e1264-6. | 1.1 | 6 |
| 56 | A Periprosthetic Femoral Fracture with Characteristics of Atypical Femoral Fracture. <i>Case Reports in Orthopedics</i> , 2019, 2019, 1-6. | 0.3 | 6 |
| 57 | Effects of the duration of transcutaneous CO ₂ application on the facilitatory effect in rat fracture repair. <i>Journal of Orthopaedic Science</i> , 2020, 25, 886-891. | 1.1 | 6 |
| 58 | Transcutaneous carbon dioxide application inhibits muscle atrophy after fracture in rats. <i>Journal of Orthopaedic Science</i> , 2020, 25, 338-343. | 1.1 | 6 |
| 59 | Radiation-Associated Fracture Nonunion of the Clavicle Treated with Locking Plate Fixation and Autologous Bone Grafting. <i>Case Reports in Medicine</i> , 2012, 2012, 1-3. | 0.7 | 5 |
| 60 | Treatment of ununited femoral neck fractures in young adults using low-intensity pulsed ultrasound: Report of 2 cases. <i>International Journal of Surgery Case Reports</i> , 2016, 21, 59-62. | 0.6 | 5 |
| 61 | Effects of trochlear fragmentation on functional outcome in coronal shear fractures: a retrospective comparative study. <i>JSES International</i> , 2021, 5, 571-577. | 1.6 | 5 |
| 62 | Incidence of Venous Thromboembolism in Fractures Around and Below the Knee With Physical Prophylaxis. <i>Orthopedics</i> , 2012, 35, e1476-82. | 1.1 | 5 |
| 63 | Clinical and radiological results of locking plate fixation for periprosthetic femoral fractures around hip arthroplasties: a retrospective multi-center study. <i>Journal of Orthopaedic Science</i> , 2014, 19, 984-990. | 1.1 | 4 |
| 64 | A prospective randomized comparative study to determine appropriate edoxaban administration period, to prevent deep vein thromboembolism in patients with total knee arthroplasty. <i>Journal of Orthopaedic Science</i> , 2018, 23, 1005-1010. | 1.1 | 4 |
| 65 | Topical cutaneous application of carbon dioxide via a hydrogel for improved fracture repair: results of phase I clinical safety trial. <i>BMC Musculoskeletal Disorders</i> , 2019, 20, 563. | 1.9 | 4 |
| 66 | Relationship between glenohumeral internal rotation deficit and shoulder conditions in professional baseball pitchers. <i>Journal of Shoulder and Elbow Surgery</i> , 2021, 30, 2073-2081. | 2.6 | 4 |
| 67 | Clinical experience of the use of reamer irrigator aspirator in Japanese patients: A report of the first 42 cases. <i>Journal of Orthopaedic Science</i> , 2021, 26, 459-465. | 1.1 | 4 |
| 68 | Minimally Invasive Treatment for Tibial Malrotation after Locked Intramedullary Nailing. <i>Case Reports in Orthopedics</i> , 2018, 2018, 1-4. | 0.3 | 3 |
| 69 | Medial clavicle pseudarthrosis successfully treated with an inverted distal clavicle locking plate. <i>Annals of Medicine and Surgery</i> , 2019, 44, 1-4. | 1.1 | 3 |
| 70 | Ras associated with diabetes may play a role in fracture nonunion development in rats. <i>BMC Musculoskeletal Disorders</i> , 2019, 20, 602. | 1.9 | 3 |
| 71 | Mobile-bearing insert reduced patellar contact force at knee flexion during posterior stabilized total knee arthroplasty. <i>Clinical Biomechanics</i> , 2020, 76, 105022. | 1.2 | 3 |
| 72 | Transcutaneous CO ₂ application accelerates fracture repair in streptozotocin-induced type I diabetic rats. <i>BMJ Open Diabetes Research and Care</i> , 2020, 8, e001129. | 2.8 | 3 |

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|----|---|-----|-----------|
| 73 | Low-Intensity Pulsed Ultrasound Promotes Osteogenic Differentiation of Reamer-Irrigator-Aspirator Graft-Derived Cells in Vitro. <i>Ultrasound in Medicine and Biology</i> , 2022, 48, 313-322. | 1.5 | 3 |
| 74 | Immunohistochemical analysis revealed the expression of bone morphogenetic proteins-4, 6, 7, and 9 in human induced membrane samples treated with the Masquelet technique. <i>Journal of Orthopaedic Surgery and Research</i> , 2022, 17, 29. | 2.3 | 3 |
| 75 | Nonunion with Breakage of Gamma Nail and Subsequent Fracture in the Ipsilateral Femur. <i>Case Reports in Medicine</i> , 2013, 2013, 1-4. | 0.7 | 2 |
| 76 | Retrograde intramedullary nailing for the treatment of femoral medial condyle fracture nonunion. <i>Strategies in Trauma and Limb Reconstruction</i> , 2015, 10, 117-122. | 0.8 | 2 |
| 77 | Effects of parathyroid hormone 1-34 on osteogenic and chondrogenic differentiation of human fracture haematoma-derived cells in vitro. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016, 10, E365-E371. | 2.7 | 2 |
| 78 | Anterior transolecranon fracture dislocation with an associated avulsion fracture of coronoid process of ulna in a child: a case report. <i>JSES International</i> , 2021, 5, 9-12. | 1.6 | 2 |
| 79 | Preoperative varus deformity of the knee affects the intraoperative joint gap in unicompartmental knee arthroplasty. <i>Knee</i> , 2021, 32, 90-96. | 1.6 | 2 |
| 80 | Rescue of ankylosing hip following open reduction and internal fixation of acetabular fracture by surgical resection of heterotopic ossification: A case report. <i>International Journal of Surgery Case Reports</i> , 2018, 53, 107-111. | 0.6 | 1 |
| 81 | Surgically Treated Nonunion following Ischial Tuberosity Avulsion Fracture of a 14-Year-Old Athlete. <i>Case Reports in Orthopedics</i> , 2020, 2020, 1-5. | 0.3 | 1 |
| 82 | Extraskeletal Para-articular Osteochondroma of the Ankle Joint in a Child. <i>JBJS Case Connector</i> , 2020, 10, e0274-e0274. | 0.3 | 1 |
| 83 | Modern femoral component design in total knee arthroplasty shows a lower patellar contact force during knee flexion compared with its predecessor. <i>Knee</i> , 2021, 30, 1-8. | 1.6 | 1 |
| 84 | Treatment of Chronic Osteomyelitis of the Femur by Intramedullary Antibiotic Perfusion (iMAP): A Case Report.. <i>Journal of Orthopaedic Case Reports</i> , 2021, 11, 35-38. | 0.1 | 1 |
| 85 | Clinical Outcome of Patients with Pelvic and Retroperitoneal Bone and Soft Tissue Sarcoma: A Retrospective Multicenter Study in Japan. <i>Cancers</i> , 2022, 14, 3023. | 3.7 | 1 |
| 86 | Minimally invasive plate osteosynthesis for humeral shaft nonunion: A report of two cases. <i>Annals of Medicine and Surgery</i> , 2019, 48, 43-47. | 1.1 | 0 |
| 87 | Sciatic Nerve Palsy following Curved Periacetabular Osteotomy. <i>Case Reports in Orthopedics</i> , 2020, 2020, 1-4. | 0.3 | 0 |
| 88 | Influence of selected plane on the evaluation of tibial tunnel locations using a three-dimensional bone model in double-bundle anterior cruciate ligament reconstruction. <i>Knee</i> , 2021, 29, 298-304. | 1.6 | 0 |
| 89 | Closed Compression Nailing Using a New-Generation Intramedullary Nail without Autologous Bone Grafting for Humeral Shaft Nonunion. <i>Case Reports in Orthopedics</i> , 2021, 2021, 1-8. | 0.3 | 0 |
| 90 | A Case of Femoral Neck Insufficiency Fracture due to Tumor-Induced Osteomalacia. <i>Case Reports in Orthopedics</i> , 2021, 2021, 1-5. | 0.3 | 0 |

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|----|--|-----|-----------|
| 91 | Traumatic subchondral fracture of the femoral head in a healed trochanteric fracture. BMJ Case Reports, 2014, 2014, bcr2014205161-bcr2014205161. | 0.5 | 0 |
| 92 | Infected Gustilo IIIB open knee joint fracture treated with an antimicrobial iodine-supported megaprosthesis: A case report. Journal of Orthopaedic Science, 2020, , . | 1.1 | 0 |