

中国骨伤®

ZHONGGUO GUSHANG

月刊 1987 年创刊 第 34 卷 第 8 期 2021 年 8 月 25 日出版

主 管
国家中医药管理局

主 办
中国中西医结合学会
中国中医科学院

编 辑
中国骨伤杂志编辑委员会
100700,北京市东直门内南小街甲 16 号
电话:(010)64089487
传真:(010)64089792
http://www.zggszz.com
E-mail:zggszz@sina.com

主 编 朱立国

执行主编 李为农

编辑部副主任 连智华

出 版
《中国骨伤》杂志社
100700,北京市东直门内南小街甲 16 号
电话:(010)64089489
传真:(010)64089792
E-mail:zggszz@sina.com

广告发布登记号
京东工商广登字 20180004 号

印 刷
北京汇林印务有限公司

发 行
国内:中国邮政集团公司
北京市报刊发行局
海外:中国国际图书贸易集团
有限公司
(北京 399 信箱,100044)
代号 M587

订 购
全国各地邮局
邮发代号 82-393

邮 购
《中国骨伤》杂志社
100700,北京市东直门内南小街甲 16 号

国内定价
每期 40.00 元,全年 480.00 元

中国标准连续出版物号
ISSN 1003-0034
CN 11-2483/R

版权归《中国骨伤》杂志社所有

本刊刊出的所有文章不代表本刊编委会
的观点,除非特别声明

目 次

述评	
椎体成形术和球囊后凸成形术治疗骨质疏松性椎体压缩骨折应注意的问题	691
张功林	
椎体成形与后凸成形	
短节段椎弓根螺钉固定联合椎体成形术治疗伴有后凸畸形 Kummell 病	694
黄兆波, 颜少峰, 李生鏊, 刘军辉, 范顺武, 赵凤东	
经皮穿刺椎体扩张球囊后凸成形术后邻近椎体再骨折相关危险因素分析	705
方中雲, 闵继康, 曾忠友, 张强华, 朱涛, 翁伟, 张伟莉, 沈方英, 夏瑛, 丁丽英	
数字减影血管造影引导下单侧穿刺椎体成形治疗骨质疏松性椎体压缩骨折	710
谭兵, 范斌, 杨启远, 冯敬, 雷超, 冯伟, 罗潇, 李英博	
椎体成形与弯角椎体成形治疗骨质疏松性椎体压缩骨折的临床效果与辐射暴露分析	725
崔志栋, 杨光, 张大鹏	
骨水泥不同弥散方式对椎体成形术后生物力学影响的有限元分析	732
姚龚, 沈忆新, 李敏, 蔡兵	
明胶海绵在经皮椎体后凸成形术中预防 Kummell 病椎体前壁骨水泥渗漏的临床观察	738
张树良, 徐彬, 劳杨骏, 盛红枫	
临床研究	
颈椎前路 Hybrid 术在治疗颈椎退行性疾病中对活动度和曲度的影响	700
齐英娜, 李春根, 赵凯, 柳根哲, 尹辛成, 彭亚, 曾俊, 陈海东, 郭雨霞	
脊柱结核手术时机选择的初步研究	717
金阳辉, 石仕元, 郑琦, 沈健, 应小樟, 朱博	
磁共振扩散加权成像表观扩散系数、信号强度比对腰椎骨质疏松的定量评价	743
朱慧玲, 丁建平, 戚盈杰	
收肌管阻滞术联合经皮穴位电刺激用于全膝关节置换术后的临床效果	750

葛梅,翟晓军,李勇	
股骨近端防旋髓内钉治疗股骨转子间骨折围术期输血的危险因素分析	755
程文静,丁国正,龚延海	
软组织Ⅲ度肿胀 SandersⅣ型跟骨骨折的分期手术治疗	773
严志强,解绪红,杨康胜,刘强,李贝,肖军,区广鹏	
杠杆定位手法结合脉冲电场对腰椎间盘突出症患者镇痛效应及 IL-1 β 、TNF- α 的影响	780
吕立江,毛凌宇,李景虎,杨超,王伟娃,王晟,刘鼎	
基础研究	
3D 打印个性化腰椎融合器设计及生物力学性能研究分析	764
任捷,吕智	
经验交流	
改良后路 I 期全脊柱整块切除脊柱重建术治疗侵袭性胸椎血管瘤	759
王增平,刘林,薛文,宋玉鑫,钱耀文	
病例报告	
阔筋膜游离移植治疗腕部自发性多根肌腱缺损 1 例	770
谭靖,梁杰,张坤	
综述	
嗅鞘细胞治疗脊髓损伤的研究进展	785
李嘉熙,高正超,贺西京,李京,赵航	

本刊稿约见本卷第 1 期 II

本期责任编辑:王宏

CHINA JOURNAL OF ORTHOPAEDICS AND TRAUMATOLOGY

Monthly Established in 1987 Volume 34, Number 8 August 25, 2021

Responsible Institution

State Administration of
Traditional Chinese Medicine

Sponsor

Chinese Association of Integrative
Medicine;
China Academy of Chinese Medical
Sciences
No.16 Nanxiaojie Dongzhimennei,
Beijing 100700, China

Editing

Editorial Board of China Journal of
Orthopaedics and Traumatology

Editor-in-Chief

ZHU Li-guo(朱立国)

Executive Editor

LI Wei-nong(李为农)

Assistant Director

LIAN Zhi-hua(连智华)

Publishing

Publishing House, China Journal of
Orthopaedics and Traumatology
No.16A Nanxiaojie Dongzhimennei,
Beijing 100700, China
Tel(Fax): 0086-10-64089792
E-mail: zggszz@sina.com

Printing

Beijing Huilin Printing Co., Ltd

Overseas Distributor

China International Book Trading
Corporation
P.O.Box 399, Beijing, China
Code No.M587

Mail-order

Publishing House, China Journal of
Orthopaedics and Traumatology
No.16A Nanxiaojie Dongzhimennei,
Beijing 100700, China
Tel(Fax): 0086-10-64089792
E-mail: zggszz@sina.com

CSSN

ISSN 1003-0034

CN 11-2483/R

Copyright© 2021 by the China Journal of
Orthopaedics and Traumatology Press

All articles published represent the opin-
ions of the authors, do not represent offi-
cial policy of the Editorial Board, unless
this is clearly specified

CONTENTS IN BRIEF

Forum of specialist

Several problems to percutaneous vertebroplasty and balloon kyphoplasty for the
treatment of osteoporotic vertebral compression fractures 691
ZHANG Gong-ling

Vertebroplasty and kyphoplasty

Short-segment pedicle screw fixation combined with vertebroplasty for the treat-
ment of Kümmell disease with kyphosis* 694
HUANG Zhao-bo, YAN Shao-feng, LI Sheng-yun, LIU Jun-hui, FAN Shun-wu,
ZHAO Feng-dong

Analysis of related risk factors for the refracture of adjacent vertebral body after
percutaneous kyphoplasty* 705
FANG Shen-yun, MIN Ji-kang, ZENG Zhong-you, ZHANG Qiang-hua, ZHU Tao,
WENG Wei, ZHANG Wei-li, SHEN Fang-ying, XIA Ying, DING Li-ying

Unilateral vertebroplasty and kyphoplasty by digital subtraction angiography for
the treatment of osteoporotic vertebral compression fractures* 710
TAN Bing, FAN Bin, YANG Qi-yuan, FENG Jing, LEI Chao, FENG Wei, LUO Xiao,
LI Ying-bo

Clinical efficacy and radiation exposure analysis of vertebroplasty and curved
vertebroplasty in the treatment of osteoporotic vertebral compression fracture* 725
CUI Zhi-dong, YANG Guang, ZHANG Da-peng

Biomechanical effects of bone cement different diffusion patterns after vertebro-
plasty: finite element analysis* 732
YAO Gong, SHEN Yi-xin, LI Ming, CAI Bin

Clinical observation of gelfoam in preventing cement leakage via the anterior
vertebral wall in Kümmell patient treated with percutaneous kyphoplasty* 738
ZHANG Shu-liang, XU Bin, LAO Yang-jun, SHENG Hong-feng

Clinical study

Efficacy of Hybrid anterior cervical spine surgery on range of motion and curva-
ture in the treatment of cervical degenerative diseases* 700
QI Ying-na, LI Chun-ge, ZHAO Kai, LIU Gen-zhe, YIN Xin-cheng, PENG Ya,
ZENG Jun, CHEN Hai-dong, GUO Yu-xia

A preliminary study on the surgical timing of spinal tuberculosis* 717
JIN Yang-hui, SHI Shi-yuan, ZHENG Qi, SHEN Jian, YING Xiao-zhang, ZHU Bo

Quantitative evaluation of lumbar spine osteoporosis by apparent diffusion coeffi-
cient and signal intensity ratio of magnetic resonance diffusion-weighted mag-
netic resonance imaging* 743

<i>ZHU Hui-ling, DING Jian-ping, QI Ying-jie</i>	
Clinical efficacy of adductor canal blockade combined with transcutaneous electrical acupoint stimulation for total knee arthroplasty*	750
<i>GE Mei, ZHAI Xiao-jun, LI Yong</i>	
Analysis of risk factors of perioperative blood transfusion in the treatment of femoral intertrochanteric fracture with proximal femoral nail antirotation*	755
<i>CHENG Wen-jing, DING Guo-zheng, GONG Yan-hai</i>	
Staged surgery of Sanders type IV calcaneal fractures with soft tissue three-degree swelling*	773
<i>YAN Zhi-qiang, XIE Xu-hong, YANG Kang-sheng, LIU Qiang, LI Bei, XIAO Jun, OU Guang-peng</i>	
Lever positioning manipulation combined with pulsed electric field on analgesic effect of patients with lumbar disc herniation and its influence on IL-1β and TNF-α*	780
<i>LYU Li-jiang, MAO Ling-yu, LI Jing-hu, YANG Chao, WANG Wei-wa, WANG Sheng, LIU Ding</i>	
Experimental research	
3D printed personalized lumbar spinal fusion device design and biomechanical performance analysis*	764
<i>REN Jie, LYU Zhi</i>	
Empirical communication	
Clinical study of modified one stage posterior approach total en block spondylectomy and spinal reconstruction in treatment of invasive thoracic vascular tumor*	759
<i>WANG Zeng-ping, LIU Lin, XUE Wen, SONG Yu-xin, QIAN Yao-wen</i>	
Case report	
Fascia lata graft for the treatment of spontaneous ruptures of multiple extensor tendons on wrist joint: a case report	770
<i>TAN Jing, LIANG Jie, ZHANG Kun</i>	
Reviews	
Advances in olfactory ensheathing cells for the treatment of spinal cord injury*	785
<i>LI Jia-xi, GAO Zheng-chao, HE Xi-jing, LI Jing, ZHAO Hang</i>	

*With English abstract