

中国医学影像技术

ZHONGGUO YIXUE YINGXIANG JISHU

月刊 1985 年创刊 第 40 卷 第 9 期 2024 年 9 月 20 日出版

主管 中国科学院
主办 中国科学院声学研究所

名誉主编
刘玉清 唐孝威

主编
洪楠 李建初

副主编
陈涛 崔立刚 冯逢
何文 李风华 李亚明
卢洁 任卫东 孙应实
田家玮 王培军 王振常
吴青青 伍建林 谢明星
余永强 郑海荣

社长 郑春见

总编辑 王艳萍

编辑出版
《中国医学影像技术》期刊社
有限公司

印刷
北京科信印刷有限公司

发行
国内:中国邮政集团有限公司
北京市报刊发行局
国外:中国国际图书贸易集团
有限公司
北京 399 信箱,100048
代号:M1344

订购
全国各地邮局
邮发代号 82-509

邮购
100190 北京市海淀区北四环
西路 21 号大猷楼 502 室
电话、传真:(86-10)82547903

定价
每册 26 元 全年 312 元

中国标准连续出版物号
ISSN 1003-3289
CN 11-1881/R

网址 www.cjmit.com

E-mail cjmit@mail.ioa.ac.cn

2024 年版权归《中国医学影像技术》
期刊社有限公司所有

目次

述评

儿童骨骼肌肉系统疾病影像学研究现状与进展 杨洋,袁新宇,李欣(1281)

专论

腰椎骨髓 MR T1 mapping 影像组学预测儿童急性淋巴细胞白血病临床危险度
..... 王立英,李辛子,李颖,郑美敏,陈森,叶兆祥,王春祥(1284)

卡波西型血管内皮瘤累及骨骼:临床及影像学表现
..... 梁琼鹤,张朋,杨明,管红梅(1289)

基于 3D 黑骨序列测量 Legg-Calvé-Perthes 病股骨头突出指数并评估其 Herring 分型
..... 李君伟,庄霞梅,尹燕,魏伟安,金科(1294)

人工智能用于儿童骨关节影像学研究进展 于泓,王静石(1299)

实验研究

表观弥散系数定量评估兔肢体高压电烧伤早期肌肉进行性损伤
..... 阮鹏,葛映红,熊梦烨,谭一清,陈曦,孙斯琴(1303)

中枢神经影像学

基于机器学习模型预测抑郁症患者痴呆风险
..... 肖轩,戴西件,李艺晖,杨培,龚良庚(1309)

基于图谱自动分割儿童颅脑 MRI 中皮层下核团
..... 张欢欢,李婷婷(1314)

孤独症谱系障碍患者脑区功能复杂度变化及其与预测脑龄的关系 孟天姿,李赫冉,
刘姝婷,刘喆,王颖因,吕睿,赵海辰,张光玉,何乐民,张瑱,蔡小涛(1319)

弥散峰度成像影像组学评估帕金森病
..... 张宁贵,王雪,李璐璐,梅超,伍雅婷,尚松安,张洪英,叶靖(1323)

头颈部影像学

微波消融治疗继发性甲状旁腺功能亢进症后早期低钙血症的影响因素
..... 吴家昊,李春,刘志兴,刘沄,吕佳杰(1327)

心脏、血管影像学

颈动脉粥样硬化斑块三维超声参数评估 2 型糖尿病患者冠心病风险
..... 韩莹,敖梦,王志刚(1332)

胸部影像学

年龄及月经状态对健康女性乳腺动态增强 MRI 半定量参数的影响
..... 张爱娟,陈基明,李周丽,吴莉莉,闫娜(1336)

乳腺包裹性乳头状癌超声表现:与乳腺非特殊型浸润性癌相对照
..... 刘灿斌,刘晖,崔婕琳(1341)

基于递归特征消除支持向量机人工神经网络模型鉴别乳腺导管原位癌及其伴微浸润
..... 周晓平,杨蔚,尹清云,张朝林,张宁妹(1345)

乳腺癌相关淋巴水肿淋巴显像分期与脂肪抽吸术联合淋巴管-静脉吻合术疗效的相关性
..... 简楠,任超,童冠圣,文哲(1351)

腹部影像学

肝泡型棘球蚴病门静脉期增强 CT 纹理分析预测其肝外转移	阿依努尔·特列吾别尔根,侯娟,张思苗,刘文亚(1357)
临床及 MRI 列线图模型预测直肠癌同时性肝转移	潘玉蝶,王书兴,刘晓雯,徐婷,江长思,唐雪,罗燕,龚静山(1361)
光谱 CT 预测结直肠癌区域淋巴结转移	卓水清,刘雅丹,江琳玲,郑舒文,符劲,刘立志(1366)
临床资料联合 CT 影像组学特征评估胃癌程序性死亡配体 1 状态	李庆龙,詹鹏超,邢静静,刘星,梁盼,张永高,高剑波(1371)

妇产科影像学

超声参数预测剖宫产瘢痕妊娠患者可否获益于单一超声引导下清宫术	周春桥,黎新艳,莫宇宁,韦芳桃,黄艳凤,谢海容(1377)
平扫 MRI 诊断早孕期剖宫产瘢痕妊娠发生胎盘植入	陈文林,崔博闻,蔡思清(1382)

生殖泌尿影像学

新生儿肾上腺囊性神经母细胞瘤临床及 CT 表现	梁琼鹤,管红梅,蒋维维,盛会雪,王颖(1386)
-------------------------------	--------------------------

骨骼肌肉影像学

存在不同级别骶髂关节炎的强直性脊柱炎患者骶髂关节表观弥散系数与 SPARCC 评分的相关性	张紫薇,王家维,曾琪,睦贺,李语,梁晨,黄翌殊,朱霞,宋玲玲(1390)
儿童脂肪纤维瘤病 CT 及 MRI 表现	李长健,李旭,胡克非,王晓玉,胡俊(1395)
脊椎侵袭性血管瘤 ¹⁸ F-FDG PET/CT 表现	宋乐,李慧,张卫方(1400)
股骨内侧髁软骨下不全骨折与内侧半月板损伤模式及外突的相关性	覃滢,李智晞,韦宝琛,石楨松,刘晓岚,韩秋丽(1405)

医学物理与工程学

投影域与图像域联合学习重建网络用于重建有限角度胸部 CT 图像	陈杰,王克强,简建波,王鹏,吴君,张文学(1410)
基于傅里叶环相关测量超声微血管图像整体分辨率的可行性	胡海曼,雷雨蒙,余靖,叶华容,鄢华,张舸(1417)

影像技术学

对比自旋回波与平面回波弥散张量成像显示颞叶放射性脑病	陈新吟,丁苗苗,何舒欣,陈晓红,苏赞(1422)
3D V-Net 深度学习模型用于自动分割 T2WI 及表观弥散系数图所示前列腺	孙兆男,何江凯,王可欣,黄文鹏,吴鹏升,张晓东,王霄英(1426)

综述

深度学习用于颞骨 CT 成像应用进展	李昊岳,薛智元,陆萍萍,张珂(1432)
氨基质子转移成像用于胶质瘤研究进展	高萍,魏佳欣,许秀安(1436)
时间依赖弥散 MRI 用于肿瘤研究进展	赵雪莲,严家豪,贾非,张静,刘光耀(1440)

经验交流

腹内型侵袭性纤维瘤病 CT 表现	闫瑞雪,李滨,崔力方,杨晓燕,段永利,张滨,王仁贵(1444)
------------------------	---------------------------------

个案报道

1 例黏脂贮积症 II 型超声心动图表现	刘璐,周柱玉(1447)
右膝关节结核并大量米粒体形成 1 例	李翔,付旭文,寸新华(1449)
经胸超声心动图诊断封堵房间隔缺损过程中冠状动脉空气栓塞 1 例	蒋文军(1451)
孕中期产前超声诊断胎盘畸胎瘤 1 例	杨欣,戴晴,吕熾,姜英,赵大春,欧阳云淑(1453)
右侧颞骨原发性肝样腺癌 1 例	陈子洋,杜恩辅,李洁琼,韩倩倩(1454)
正中弓状韧带压迫综合征伴中结肠动脉瘤破裂致腹膜后血肿 1 例	陈观木,王贤明,华先平,郑国良(1455)
腹膜恶性间皮瘤疝入后纵隔 1 例	王双,金光玉(1456)

本期执行主编	袁新宇
本期执行编委	杨洋田艳
本期责任编辑	冯洁本期校对杨盼

CHINESE JOURNAL OF MEDICAL IMAGING TECHNOLOGY

Monthly Established in 1985 Vol 40, No 9 Sep 20, 2024

Responsible Institution

Chinese Academy of Sciences

Sponsor

Institute of Acoustics,
Chinese Academy of Sciences

Honorary Editor

LIU Yuqing TANG Xiaowei

Editor-in-Chief

HONG Nan LI Jianchu

Associate Editor

CHEN Tao CUI Ligang
FENG Feng HE Wen
LI Fenghua LI Yaming LU Jie
REN Weidong SUN Yingshi
TIAN Jiawei WANG Peijun
WANG Zhenchang WU Qingqing
WU Jianlin XIE Mingxing
YU Yongqiang ZHENG Hairong

President

ZHENG Chunjian

Chief Editor

WANG Yanping

Editing and Publishing

Press of Chinese Journal of Medical
Imaging Technology Co. , Ltd

Printing

Beijing Kexin Printing Co. , Ltd

Overseas Distributor

China International Book Trading
Corporation
P. O. Box 399, Beijing 100048, China
Code No. M1344

Mail Order

Room 502, Da-you Building,
No. 21, North 4th Ring West Road,
Haidian District, Beijing 100190, China
Tel, Fax: (86-10) 82547903

Price (Foreign)

USD \$ 26.00

CSSN

ISSN 1003-3289

CN 11-1881/R

Website

www. cjmit. com

E-mail

cjmit@mail. ioa. ac. cn

Copyright©2024 by the Press of

Chinese Journal of Medical Imaging

Technology Co. , Ltd

Contents in Brief

Editorial

Research status and progresses of imaging for musculoskeletal system diseases in children (1281)
YANG Yang, YUAN Xinyu, LI Xin

Focal Topics

Lumbar spine marrow MR T1 mapping radiomics for predicting clinical risk of acute lymphoblastic
leukemia in children (1284)
WANG Liying, LI Xinzi, LI Ying, ZHENG Meimin, CHEN Sen, YE Zhaoxiang, WANG Chunxiang

Clinical and imaging findings of Kaposiform hemangioendothelioma involved bone (1289)
LIANG Qionghe, ZHANG Peng, YANG Ming, GUAN Hongmei

3D black bone sequence for measuring femoral head extrusion index and evaluating Herring
classification of Legg-Calvé-Perthes disease (1294)
LI Junwei, ZHUANG Xiamei, YIN Yan, WEI Wei'an, JIN Ke

Research progresses of artificial intelligence in pediatric osteoarticular imaging (1299)
YU Hong, WANG Jingshi

Experimental Study

Apparent diffusion coefficient for quantitatively evaluating progressive muscle injury of rabbit
limbs in early stage of high-voltage electrical burn (1303)
RUAN Peng, GE Yinghong, XIONG Mengye, TAN Yiqing, CHEN Xi, SUN Siqin

Neuroimaging

Machine learning model for predicting the risk of dementia in patients with depression (1309)
XIAO Xuan, DAI Xijian, LI Yihui, YANG Pei, GONG Lianggeng

Automatic segmentation of subcortical nuclei on children's cerebral MRI based on atlas (1314)
ZHANG Huanhuan, LI Tingting

Alterations in functional complexity of brain regions in autism spectrum disorder patients and
correlations with the predicted brain age (1319)
MENG Tianzi, LI Heran, LIU Shuting, LIU Zhe, WANG Yingnan, LYU Rui, ZHAO Haichen,

ZHANG Guangyu, HE Lemin, ZHANG Zhen, CAI Xiaotao

Diffusion kurtosis imaging radiomics for evaluating Parkinson disease (1323)
ZHANG Ninggui, WANG Xue, LI Lulu, MEI Chao, WU Yating, SHANG Song'an, ZHANG Hongying,

YE Jing

Head and Neck Imaging

Influencing factors of early hypocalcemia after microwave ablation for treating secondary
hyperparathyroidism (1327)

WU Jiahao, LI Chun, LIU Zhixing, LIU Ga, LYU Jiajie

Heart and Vascular Imaging

Three-dimensional ultrasound parameters of carotid atherosclerotic plaque for evaluating risk of
coronary heart disease in patients with type 2 diabetes mellitus (1332)

HAN Ying, AO Meng, WANG Zhigang

Chest Imaging

Impact of age and menstrual status on semi-quantitative parameters of breast dynamic enhanced
MRI in healthy women (1336)

ZHANG Aijuan, CHEN Jiming, LI Zhouli, WU Lili, YAN Na

Ultrasonic manifestations of breast encapsulated papillary carcinoma: Comparison with breast
invasive breast carcinoma of non-special type (1341)

LIU Canbin, LIU Hui, CUI Jielin

Artificial neural network model based on recursive feature elimination-support vector machine for
differentiating ductal carcinoma in situ and complicated with microinvasion (1345)

ZHOU Xiaoping, YANG Wei, YIN Qingyun, ZHANG Chaolin, ZHANG Ningmei

Correlation between lymphoscintigraphy stage of breast cancer-related lymphedema and therapeutic
effect of liposuction combined with lymphatic-venous anastomosis (1351)

LIN Nan, REN Chao, TONG Guansheng, WEN Zhe

Abdominal Imaging

- Portovenous phase enhanced CT texture analysis of hepatic alveolar echinococcosis for predicting extrahepatic metastasis** (1357)
AYINUER • *Teliwubieergen*, HOU Juan, ZHANG Simiao, LIU Wenyu
- Clinical and MRI nomogram model for predicting simultaneous liver metastasis of rectal cancer** (1361)
PAN Yudie, WANG Shuxing, LIU Xiaowen, XU Ting, JIANG Changsi, TANG Xue, LUO Yan, GONG Jingshan
- Spectral CT for predicting regional lymph node metastasis of colorectal cancer** (1366)
ZHUO Shuiqing, LIU Yadan, JIANG Linling, ZHENG Shuwen, FU Jin, LIU Lizhi
- Clinical data combined with CT radiomics features for evaluating programmed cell death-ligand 1 status in gastric cancer** (1371)
LI Qinglong, ZHAN Pengchao, XING Jingjing, LIU Xing, LIANG Pan, ZHANG Yonggao, GAO Jianbo

Obstetrical and Gynecological Imaging

- Ultrasonic parameters for predicting cesarean scar pregnancy patients benefit from transabdominal ultrasound-guided suction curettage alone** (1377)
ZHOU Chunqiao, LI Xinyan, MO Yuning, WEI Fangtao, HUANG Yanfeng, XIE Hairong
- Non-contrast MRI for diagnosing cesarean scar pregnancy developed placental implantation in early pregnancy** (1382)
CHEN Wenlin, CUI Bowen, CAI Siqing

Genitourinary Imaging

- Clinical and CT features of neonatal adrenal cystic neuroblastoma** (1386)
LIANG Qionghe, GUAN Hongmei, JIANG Weiwei, SHENG Hui-xue, WANG Ying

Musculoskeletal Imaging

- Correlation between apparent diffusion coefficient of sacroiliac joint and SPARCC score in ankylosing spondylitis patients with different grade sacroiliac joint inflammation** (1390)
ZHANG Ziwei, WANG Jiawei, ZENG Qi, SUI He, LI Yu, LIANG Chen, HUANG Zhaoshu, ZHU Xia, SONG Lingling
- CT and MRI manifestations of lipofibromatosis in children** (1395)
LI Changjian, LI Xu, HU Kefei, WANG Xiaoyu, HU Jun
- ¹⁸F-FDG PET/CT manifestations of vertebral aggressive hemangioma** (1400)
SONG Le, LI Hui, ZHANG Weifang
- Correlations of medial femoral condyle subchondral insufficiency fracture with medial meniscus injury pattern and extrusion** (1405)
QIN Ying, LI Zhixi, WEI Baochen, SHI Zhensong, LIU Xiaolan, HAN Qiuli

Imaging Physics and Engineering

- Projection domain and image domain joint learning reconstruction network for reconstructing chest limited angle CT images** (1410)
CHEN Jie, WANG Keqiang, JIAN Jianbo, WANG Peng, WU Jun, ZHANG Wenxue
- Feasibility of Fourier ring correlation for measuring overall resolution of ultrasonic microvascular images** (1417)
HU Haiman, LEI Yumeng, YU Jing, YE Huarong, YAN Hua, ZHANG Ge

Imaging Technology

- Turbo spin echo and echo planar imaging diffusion tensor imaging for displaying temporal lobe radiation encephalopathy** (1422)
CHEN Xinyin, DING Miaomiao, HE Shuxin, CHEN Xiaohong, SU Yun
- 3D V-Net deep learning model for automatic segmentation of prostate on T2WI and apparent diffusion coefficient maps** (1426)
SUN Zhaonan, HE Jiangkai, WANG Kexin, HUANG Wenpeng, WU Pengsheng, ZHANG Xiaodong, WANG Xiaoying

Reviews

- Application progresses of deep learning in temporal bone CT imaging** (1432)
LI Haoyue, XUE Zhiyuan, LU Pingping, ZHANG Ke
- Research progresses of amide proton transfer imaging for glioma** (1436)
GAO Ping, WEI Jiaxin, XU Xiu'an
- Research progresses of time-dependent diffusion MRI in tumors** (1440)
ZHAO Xuelian, YAN Jiahao, JIA Fei, ZHANG Jing, LIU Guangyao

Clinical Experiences

- CT manifestations of intra-abdominal aggressive fibromatosis** (1444)
YAN Ruiyue, LI Bin, CUI Lifang, YANG Xiaoyan, DUAN Yongli, ZHANG Bin, WANG Rengui

Case Reports

- Echocardiographic manifestations of mucopolidosis type II in a child: Case report** (1447)
LIU Lu, ZHOU Zhuayu
- Knee joint tuberculosis with massive rice bodies formation: Case report** (1449)
LI Xiang, FU Xuwen, CUN Xinhua
- Coronary air embolism during atrial septal defect occlusion diagnosed with transthoracic echocardiography: Case report** (1451)
JIANG Wenjun
- Prenatal ultrasound diagnosis of placental teratoma during mid pregnancy: Case report** (1453)
YANG Xin, DAI Qing, LYU Yan, JIANG Ying, ZHAO Dachun, OUYANG Yunshu
- Primary hepatoid adenocarcinoma of right palatine bone: Case report** (1454)
CHEN Zhiyang, DU Enfu, LI Jieqiong, HAN Qianqian
- Median arcuate ligament syndrome complicated with retroperitoneal hematoma caused by ruptured middle colic aneurysm: Case report** (1455)
CHEN Guanmu, WANG Xianming, HUA Xianping, ZHENG Guoliang
- Peritoneal malignant mesothelioma herniated into posterior mediastinum: Case report** (1456)
WANG Shuang, JIN Guangyu