

中国医学影像技术

ZHONGGUO YIXUE YINGXIANG JISHU

月刊 1985年创刊 第39卷 第1期 2023年1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

广告发布登记

京海市监广登字20200042号

网址 www.cjmit.com

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

2023年版权归《中国医学影像技术》
期刊社有限公司所有

目 次

实验研究

超声造影血流灌注定量参数与肿瘤组织氧分压相关性:实验研究

..... 冯玉仪,何杨成,金海,何艳,胡志文,罗琼,丘丹霞,柳建华(1)

中枢神经影像学

物质成瘾患者静息态自发性神经活动改变:Meta分析

..... 苛馨云,李雨谿,赵静,夏海莎,艾双春,郑重,李涓,余曙光,金荣疆(6)

不同脑小血管病影像学总负荷评分认知正常中老年人脑灰质体积的差异

..... 张晓倩,刘思睿,范晓媛,侯波,有慧,朱以诚,马超,左真涛,冯逢(12)

青少年首发未治疗抑郁症患者脑灰质体积改变 邓杰,何建波,汪雨婷,袁义志,

郭鑫,黄斌,王心茹,杨虹莉,梅兰,邱丽华(17)

脑血流量诊断非神经精神性系统性红斑狼疮

..... 张鹏,李晓露,周文苏,夏建国,孙中茹,邹红梅(22)

头颈部影像学

基于临床及高分辨率血管壁MRI分析颈部动脉夹层患者发生急性缺血性

脑卒中危险因素

..... 欧阳烽,袁小入,吴钦,尹明雪,陈晔,高峻伟,王媛媛,陈燕,曾献军(27)

心脏、血管影像学

心肌声学造影超声心动图评估经皮冠状动脉介入治疗后合并2型糖尿病ST段抬高

心肌梗死患者心肌功能及微循环

..... 关正宇,洪林巍,张光华,杜俊达,王赛楠,赵聪选(32)

左心房自动应变技术评估2型糖尿病患者左心房功能及与糖化血红蛋白A1c的

相关性 李一鸣,吴存刚,李玉宏(37)

胸部影像学

能谱CT多参数成像鉴别孤立性肺结核与肺腺癌

..... 张国晋,李昇霖,孔维芳,尚兰,任嘉梁,张凤,黄子昕,周俊林,蒲红(42)

⁹⁹Tcm-右旋糖酐淋巴显像诊断乳糜胸

..... 张丽,郝昆,文哲,陈钊,康磊,童冠圣(48)

CT鉴别亚实性肺腺癌亚型 李沁桦,侯小明,孙旭阳,范海波,王世伟,李家开(52)

腹部影像学

术前双能量CT定量参数预测临床I~II期胃腺癌侵袭性病理特征

..... 郑云艳,蓝燕芬,马明平,李厚强(56)

妇产科影像学

胎儿分裂手/足畸形产前超声特征:3例报告及文献复习

..... 闫亚妮,李云桃,杨振娟,薛小伟,刘国莉,裴秋艳(61)

新型智能产前超声技术SFA自动识别与获取胎儿标准切面

..... 郭文佳,罗丹丹,徐荟,刘瑜煊,何鸿丽,谭惠敏,李胜利(65)

皮埃尔·罗班序列征胎儿的产前超声表现	张 婕,简 练,田湘英,王丽敏(70)
早孕期超声测量胎儿脉络丛及枕额径诊断开放性脊柱裂	刘书丽,马秀丽,何 平,张 岩(74)
生殖泌尿影像学	
MIM 软件自动勾画前列腺癌危及器官	向雪静,罗媛媛,邓 宇,李 镛,马晓洁(79)
骨骼肌肉影像学	
基于新型腰椎轴向负荷装置 MRI 诊断腰椎管狭窄症	房星宇,李佳林,秦景春,朱 博,张 彬,韩 巍,吕 苑,张艺军,唐志全,张金萍(85)
医学物理与工程学	
奇异值分解滤波对超声造影超微血管成像图像质量的影响	程 慧,胡海曼,雷炳松,王 琦,李 楠,叶华容(90)
引入靶区外扩预测放射治疗中危及器官自动分割的平均剂量偏差	许六军,张玉洁,张建英(94)
影像技术学	
双能 CT 融合重建权重对单能衰减和有效原子序数的影响:体模研究	田 璐,黄红云,范 杰(99)
深度学习重建算法优化能谱 CT 低单能量图像质量及检测肝脏低对比度小病灶能力	吕培杰,刘娜娜,王落桐,Francesca Rigioli,Daniele Marin,高剑波(104)
综述	
乳腺癌相关淋巴水肿影像学评估进展	高 婷,黄 胜(109)
功能 MRI 研究特发性耳鸣机制进展	李柏洁,张雪婷,付渊博,刘慧林,沈琳博,于 寒,宋玉强(113)
多模态影像学评估颈动脉粥样硬化易损斑块药物治疗进展	谭玉婷,黄 磊,张怡婵,邓文惠,刘天舒,何书坤,白 莹,张 丽,谢明星,王 静(117)
模拟主动脉瓣狭窄血流动力学研究进展	王 楠,韩庆奇,徐洪涛,崔国民(122)
超声弹性成像评估硬皮病累及皮肤研究进展	何前程,夏 宇,许 娜(126)
影像组学研究椎体骨折进展	叶森琦,侯志鹏,张吉辉,顾勇杰,于 亮,赵刘军(130)
经验交流	
CTA 多模式 3D 打印制作 Stanford B 型主动脉夹层模型	吴 励,韦亚宁,曾岸轲,董雅倩,张怡蒂,杨 凯(134)
抗髓鞘少突胶质细胞糖蛋白抗体相关性疾病 MRI 表现	王 飞,赵仲艳,吴 瑜,胡诗俊,郑惠端,徐振铭,陈旺生,陈 峰(137)
个案报道	
外阴颗粒细胞瘤超声表现 1 例	李火莲,江宁珠,姜 伟(69)
双能量 CT 诊断声带痛风石 1 例	杜惠军,陈思婷,张斯强,冉慕光,李光明(84)
1 例子宫内膜小细胞神经内分泌癌伴全身转移 ¹⁸ F-FDG PET/CT 显像	施彦坤,符珍敏,王 卉(140)
超声造影诊断肝脏囊性转移瘤 1 例	臧雪丹,谭 伟,颜迟芳(141)
心房内膜肉瘤 1 例	李 媛,刘玉建,姜 萍,吴 萍(142)
输尿管上皮样血管内皮瘤 1 例	杨砾寒,赵新湘(143)
超声诊断成年女性左侧重复肾合并输尿管开口异位 1 例	岳丝雨,罗 红,姚 晋,牛晓宇,苗娅莉,梁 蓉,杨 帆(144)
儿童右上臂巨大结节型幼年型黄色肉芽肿 1 例	宋亚辉(146)
1 例右侧睾丸旁混合型脂肪肉瘤超声表现	赵海玥,杨 舟,杨赫令(148)
咽后间隙成人型横纹肌瘤 1 例	叶兰静,吴英宁(150)
1 例肝脏原发性去分化脂肪肉瘤超声造影表现	李加伍,罗 燕(151)
胃上皮样黏液纤维肉瘤 1 例	刘思佳,杨亚英,尹 娇,付蓝琦(153)
¹⁸ F-FDG PET/CT 提示息肉-色素沉着-脱发-甲营养不良综合征患者结肠息肉恶变 1 例	司宇坤,鲁 霞,杨吉刚(155)
以超大孔径 MR 仪对 1 例肥胖患者行胸椎扫描	王 楠,宋清伟,张树恒,满玉印,刘爱连(157)
超声及 CT 诊断肺动脉瘤 1 例	邹 萌,李真林(159)

本期执行主编 伍建林 田家玮 李亚明

本期执行编委 吴清淳

本期责任编辑 冯 洁 本期校对 徐 悅

CHINESE JOURNAL OF MEDICAL IMAGING TECHNOLOGY

Monthly Established in 1985 Vol 39, No 1 Jan 20, 2023

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©2023 by the Press of
Chinese Journal of Medical Imaging
Technology Co., Ltd

Contents in Brief

Experimental Study

Correlations of blood perfusion quantitative parameters of contrast-enhanced ultrasound and oxygen partial pressure in tumor tissue: An experimental study (1)
FENG Yuyi, HE Yangcheng, JIN Hai, HE Yan, HU Zhiwen, LUO Qiong, QIU Danxia, LIU Jianhua

Neuroimaging

Resting-state spontaneous neural activity changes in patients with substance addiction: Meta-analysis (6)
GOU Xinyun, LI Yuxi, ZHAO Jing, XIA Haisha, AI Shuangchun, ZHENG Zhong, LI Juan,
YU Shuguang, JIN Rongjiang

Differences of brain gray matter volume in middle-aged and elderly people with normal cognition and different total imaging burden scores of cerebral small vessel disease (12)
ZHANG Xiaoqian, LIU Sirui, FAN Xiaoyuan, HOU Bo, YOU Hui, ZHU Yicheng,
MA Chao, ZUO Zhentao, FENG Feng

Changes of gray matter volume in adolescents with first-episode untreated depression (17)
DENG Jie, HE Jianbo, WANG Yuting, YUAN Yizhi, GUO Xin, HUANG Bin, WANG Xinru,
YANG Hongli, MEI Lan, QIU Lihua

Cerebral blood flow for diagnosis of non-neuropsychiatric systemic lupus erythematosus (22)
ZHANG Peng, LI Xiaolu, ZHOU Wensu, XIA Jianguo, SUN Zhongru, ZOU Hongmei

Head and Neck Imaging

Risk factors of acute ischemic stroke in patients with cervical artery dissection: Analysis based on clinical and high-resolution MR vessel wall imaging (27)
OUYANG Feng, YUAN Xiaoru, WU Qin, YIN Mingxue, CHEN Ye, GAO Junwei, WANG Yuanyuan,
CHEN Yan, ZENG Xianjun

Heart and Vascular Imaging

Myocardial contrast echocardiography for evaluating myocardial function and microcirculation after percutaneous coronary intervention in patients with ST segment elevation myocardial infarction complicated with type 2 diabetes mellitus (32)
GUAN Zhengyu, HONG Linwei, ZHANG Guanghua, DU Junda, WANG Sainan, ZHAO Congxuan

Left atrial automatic strain technique for evaluating left atrial function in type 2 diabetes mellitus patients and correlations with glycosylated hemoglobin A1c (37)
LI Yiming, WU Cungang, LI Yuhong

Chest Imaging

Spectral CT multi-parameter imaging for differentiating solitary lesion of pulmonary tuberculosis and lung adenocarcinoma (42)
ZHANG Guojin, LI Shenglin, KONG Weifang, SHANG Lan, REN Jialiang, ZHANG Feng,
HUANG Zixin, ZHOU Junlin, PU Hong

⁹⁹Tcm-dextran lymphoscintigraphy for diagnosis of chylothorax (48)
ZHANG Li, HAO Kun, WEN Zhe, CHEN Zhao, KANG Lei, TONG Guansheng

CT differential diagnosis of subsolid lung adenocarcinoma subtypes (52)
LI Qinhua, HOU Xiaoming, SUN Xuyang, FAN Haibo, WANG Shiwei, LI Jiakai

Abdominal Imaging

Preoperative dual energy CT quantitative parameters for predicting invasive pathological features of clinical stage I and II gastric adenocarcinoma (56)
ZHENG Yunyan, LAN Yanfen, MA Mingping, LI Houqiang

Obstetrical and Gynecological Imaging

Prenatal ultrasonic characteristics of fetal split hand/split foot malformation: Report of 3 cases and literature review (61)
YAN Yani, LI Yuntao, YANG Zhenjuan, XUE Xiaowei, LIU Guoli, PEI Qiuyan

Novel intelligent ultrasound smart fetus advanced (SFA) technique for automatic distinguishing and acquiring fetal standard sections (65)
GUO Wenjia, LUO Dandan, XU Hui, LIU Yuxuan, HE Hongli, TAN Huimin, LI Shengli

Prenatal ultrasonic findings of Pierre Robin sequence in fetus (70)
ZHANG Jie, JIAN Lian, TIAN Xiangying, WANG Limin

Fetal choroid plexus and occipitofrontal diameter measured by ultrasonography in early pregnancy for the diagnosis of open spina bifida (74)
LIU Shuli, MA Xiuli, HE Ping, ZHANG Yan

Genitourinary Imaging	
MIM software for automatically delineating organs at risk of prostate cancer	(79)
XIANG Xuejing, LUO Yuanyuan, DENG Yu, LI Lian, MA Xiaojie	
Musculoskeletal Imaging	
MRI based on a novel lumbar axial loading device for diagnosing lumbar spinal stenosis	(85)
FANG Xingyu, LI Jialin, QIN Jingchun, ZHU Bo, ZHANG Bin, HAN Wei, LYU Wei, ZHANG Yijun, TANG Zhiqian, ZHANG Jinping	
Imaging Physics and Engineering	
Impact of singular value decomposition filtering on imaging quality of superb microvascular imaging based on contrast-enhanced ultrasound	(90)
CHENG Hui, HU Haiman, LEI Bingsong, WANG Qi, LI Nan, YE Huarong	
Predicting the mean dose deviation of radiotherapy caused by automatic segmentation of organ at risk based on target expansion	(94)
XU Liujun, ZHANG Yujie, ZHANG Jianying	
Imaging Technology	
Impact of pitch and iterative reconstruction weight on monochromatic attenuation and effective atomic number of dual-energy CT: A phantom study	(99)
TIAN Lu, HUANG Hongyun, FAN Jie	
Deep learning image reconstruction for optimizing image quality of low-energy spectral monochromatic CT and detecting liver small low-contrast lesions	(104)
LYU Peijie, LIU Nana, WANG Luotong, Francesca Righioli, Daniele Marin, GAO Jianbo	
Reviews	
Progresses of imaging evaluation on breast cancer-related lymphedema	(109)
GAO Ting, HUANG Sheng	
Progresses of functional MRI researches about mechanisms of idiopathic tinnitus	(113)
LI Baijie, ZHANG Xuetong, FU Yuanbo, LIU Huilin, SHEN Linbo, YU Han, SONG Yuqiang	
Progresses of multimodal imaging evaluation on effect of drug therapy for carotid atherosclerotic vulnerable plaque	(117)
TAN Yuting, HUANG Lei, ZHANG Yichan, DENG Wenhai, LIU Tianshu, HE Shukun, BAI Ying, ZHANG Li, XIE Mingxing, WANG Jing	
Advances in hemodynamic simulation of aortic valve stenosis	(122)
WANG Nan, HAN Qingqi, XU Hongtao, CUI Guomin	
Research progresses of ultrasonic elastography for evaluation on skin involvement of scleroderma	(126)
HE Qiancheng, XIA Yu, XU Na	
Progresses of radiomics researches for vertebral fractures	(130)
YE Senqi, HOU Zhipeng, ZHANG Jihui, GU Yongjie, YU Liang, ZHAO Liu jun	
Clinical Experiences	
CTA-based multimodal 3D printing for modeling of Stanford type B aortic dissection	(134)
WU Li, WEI Yaning, ZENG Anke, DONG Yaqian, ZHANG Yidi, YANG Kai	
MRI manifestations of myelin-oligodendrocyte glycoprotein antibody-associated disease	(137)
WANG Fei, ZHAO Zhongyan, WU Yu, HU Shijun, ZHENG Huiduan, XU Zhenming, CHEN Wangsheng, CHEN Feng	
Case Reports	
Ultrasonic characteristics of vulvar granular cell tumor: Case report	(69)
LI Huolian, JIANG Ningzhu, JIANG Wei	
Dual-energy CT diagnosing vocal cord gout stone: Case report	(84)
DU Huijun, CHEN Siting, ZHANG Siqiang, RAN Muguang, LI Guangming	
¹⁸ F-FDG PET/CT imaging of endometrial small cell neuroendocrine carcinoma with systemic metastases: Case report	(140)
SHI Yankun, FU Zhenmin, WANG Hui	
Contrast-enhanced ultrasound in diagnosis of cystic liver metastases: Case report	(141)
ZANG Xuedan, TAN Wei, YAN Chifang	
Atrial intimal sarcoma: Case report	(142)
LI Yuan, LIU Yujian, JIANG Ping, WU Ping	
Epithelioid hemangioendothelioma of ureter: Case report	(143)
YANG Lihan, ZHAO Xinxiang	
Ultrasonic diagnosis of left duplex kidney complicated with ectopic ureteral orifice of an adult female: Case report	(144)
YUE Siyu, LUO Hong, YAO Jin, NIU Xiaoyu, MIAO Yali, LIANG Rong, YANG Fan	
Giant nodular juvenile xanthogranuloma of upper extremity in child: Case report	(146)
SONG Yahui	
Ultrasonic findings of right paratesticular mixed liposarcoma: Case report	(148)
ZHAO Haiyue, YANG Zhou, YANG Heling	
Adult rhabdomyoma in retropharyngeal space: Case report	(150)
YE Lanjing, WU Yingning	
Contrast-enhanced ultrasonic findings of liver primary dedifferentiated liposarcoma: Case report	(151)
LI Jiawu, LUO Yan	
Epithelioid myxofibrosarcoma of stomach: Case report	(153)
LIU Sijia, YANG Yaying, YIN Jiao, FU Lanqi	
¹⁸ F-FDG PET/CT suggested malignant colonic polyps in patient with poly-pigmentation-hair loss-onychodystrophy: Case report	(155)
SI Yukun, LU Xia, YANG Jigang	
Super-aperture MR scanning of thoracic spine in an obese patient: Case report	(157)
WANG Nan, SONG Qingwei, ZHANG Shuheng, MAN Yuyin, LIU Ailian	
Ultrasound and CT in diagnosis of pulmonary artery aneurysm: Case report	(159)
ZOU Meng, LI Zhenlin	