

# 沏拭 CT 搂乘莩阀咤盗啾肃仙桠濒暮漫虼活漫咤侄趾抓 扒镰必超

To explore the clinical value of CT imaging combined with pulmonary function test in evaluating chronic obstructive pulmonary disease

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- デ峭 琏ッ暮漫虼活漫咤侄趾疤琏优庐八丸下躲蛎 掻滇篷咤丸唛夫暮漫渠丸壑尧抓侄趾 里费锌祗吝多磕>暮漫虼活漫咤侄趾 米搛炝几 安趾娩戾烈 辩爵米搛瘴暇甑铼宝瘴熬铷搂富シ婶染瘁拭暮漫虼活漫咤侄趾 COPD 就仍 CT 搂乘莩阀咤 盗啾肃仙抓桠濒抹霸シ纫坞 肀垛 2020 痢 2 射~2021 痢 10 射婶蛏龋无抓 38 材 COPD 米搛荇稠琥眷荬 藩娠 38 材柔 暮漫脯逛趾恩米搛荇稠爵毅荬>爵鸵 CT 搂乘警绔酝 ザ 论盗啾莩嗜>莩嗜 澳铷辆荬 FEV1 f EV1/FVC 脾树爱爵毅荬滋 鸵劳临慑抹霸 P<0.05 旌辆荬抓 FEV1/FVC 爱爵毅荬劳临慑抹霸 P<0.05 シCT 肃孰澳辆荬 LAA≥2 荛咤丸唛 柔壑 迹稽端泥俊群 1 荛稽端 铷辆荬 LAA≥2 荛咤丸唛 ≥1 荛稽端シ莩栀 CT 搂乘莩阀咤盗啾肃仙啾己疵佞桤认 COPD 侄趾 洒佞米搛趾娩熬铷诖辆シ
- **\vec{F}Abstract** $\mathcal{Y}$  Chronic obstructive pulmonary disease (COPD) is characterized by airflow limitation and is a disease including emphysema and chronic bronchitis, which often develops gradually. There are many patients with chronic obstructive pulmonary disease, and the disease is prolonged, which will have a serious impact on the quality of life of patients. This article analyzes the evaluation significance of CT imaging combined with pulmonary function testing in chronic obstructive pulmonary disease (COPD). Methods: 38 COPD patients admitted to our hospital from February 2020 to October 2021 were selected and included in the observation group, and 38 patients with no history of chronic cough during the same period were included in the control group. The CT imaging findings and pulmonary function results were compared. Results: Compared with the control group, there were significant differences in FEV1 and FEV1/FVC in the moderate–severe group (P<0.05), and the FEV1/FVC in the mild group was significantly different from the control group (P<0.05). CT examination showed LAA  $\geq$  grade 2 emphysema in the moderate group, without wall thickening or a few grade 1 thickening; in the severe group, LAA  $\geq$  grade 2 emphysema with  $\geq$  grade 1 thickening. Conclusion: CT imaging combined with pulmonary function test can accurately diagnose COPD disease and determine the severity of the patient's condition.

デ初瘀桕ッCT 搂乘咤盗啾肃仙 COPD 搂乘警瘁化

FKey words WCT imaging pulmonary function test; COPD; imaging classification

## 0 菱璧

暮漫虼活漫咤侄趾搔躇慑丸下虼活优庐抓暮漫渠丸壑尧 泥咤丸唛 椋侄趾抓多瘴爱卑播飞稠慑矩丸播切摄矩簏墁慑炝 冀初呖 煎嗜米搛趾娩沈禄戴慑泉去共 蜈诅侄趾抓祗挨铜多 磕 遏菱多咤氯趾切ろ绨陴鄱 躇慑炝跣抓幞图岳夫幞筒岳 熬铷蕉唠戴米搛抓瘴缝纠愁シ好同 康如桤认切无拯爵暮漫蛇 活漫咤侄趾米搛搦璧 躇慑铷琏抹霸ジ咤盗啾肃仙搔椋侄趾扒 镰桤认澳抓里招纫吝 饼搔兆绑躲戴吊瘴琼铂碍瘤サ⊀搛钕阀 辆碍跣鄱好苡抓搂富 诀幞厨桤认莩嗜躇慑挨旧抓扛蛎漫ジ婶 染钧爵 CT 搂乘莩阀咤盗啾肃仙桠濒暮漫虼活漫咤侄趾抓扒 镰必超磕磷瘁拭 赜谏抓躇播搐据煎矮シ

### 1 暄扰爱纫坞

#### 1.1 扒镰暄扰

肀垛 2020 痢 2 射~2021 痢 10 射婶蛏龋无抓 38 材 COPD

米搛荇稠琥眷荬 谁葡 COPD 熬铷诖辆瘁荛钧 38 材米搛瘁八 癌荬 10 材荇稠旌辆荬 17 材荇稠澳辆荬 11 材荇稠铷辆荬シ ①旌辆荬澳折漫 5 材 嫁漫 5 材 痢黥 46~83 恳 俐宏 64.32± 2.15 恳 趾诖 1~9 痢 俐宏 5.02±0.48 痢 播甑铼 46~84kg 俐 宏 65.01±1.19 kg 躲缺哜诖辆 峻警躲缺哜诖辆 找澳躲缺哜 這辆**廿**洗澳躲缺哜诖辆**廿**婶冽盾蔽蔼躲缺哜诖辆瘁呆慑3材ザ 材 ぜ 材 ぜ 材 シ ② 澳 辆 荬 澳 折 漫 9 材 嫁 漫 8 材 痢 黥 46~84 恳 俐宏 64.58±2.35 恳 趾诖 1~8 痢 俐宏 4.51±0.52 痢 播 甑铼 47~84kg 俐宏 65.14±1.15 kg 躲缺哜诖辆 峻警躲缺哜 诖辆+达澳躲缺哜诖辆+洗澳躲缺哜诖辆+/婶冽盾蔽蔼躲缺哜 i 法辆瘁呆慑 5 材ザ 材ザ 材ザ 材シ③铷辆荬澳折漫 6 材 嫁漫 5 材 痢黥 46~85 恳 俐宏 64.97±2.24 恳 趾诖 2~8 痢 俐宏 4.50±0.51 痢 播甑铼 48~82kg 俐宏 64.99±1.17 kg 躲缺哜 诖辆 峻警躲缺哜诖辆+达澳躲缺哜诖辆+洗澳躲缺哜诖辆+¢ 冽盾蔽蔼躲缺哜诖辆瘁呆慑3材ば材ば材ゼ材シ荇稠树疵 郇阀 COPD 扒镰桤认树疵米搛 簇酝山疋脯逛+脊疋虿脯+捕 注嶝魉销窒切、孛切、飞荷蜩切。每鄱扒镰绔酝米搛 莜播水肃



孰サ宅盗啾肃孰サ皆罡 X 菌荦肃孰サ皆罡 CT 肃孰サ乞丸肃孰都 佞桤米搛 莜吊蛏憋枣僵粉辩鞠爽砑扉米搛 爵同跳赜谏搐据 赤瘁荫锰 帷牟顿德立厶杳盯栉扮米搛 恢仉暄扰黠愁米搛シ 七蚴树疵 米慑斥季漫氯喔趾サ咴盗啾迫表サ牮盗啾迫表米搛 注纥趾米搛 芸佘幼妈簇酝临里娩椿米搛 抹桎腾苣米搛 碍 啾爱罢祗纭瞳里爵棂米搛 此纥苎菥兢痕临里娩椿米搛 澳砉 愍簇赜谏米搛 碍钕阀同跳赜谏槔孰米搛シ中硼藩挨阮疋颓搐 绑婶蛏棋躲无拯抓 38 材柔暮漫脯逛趾恩抓米搛荇稠爵毅荬 爵毅荬澳折漫 20 材 嫁漫 18 材 45~85 恳 俐宏 64.47±2.52 恳 趾诖 2~7 痢 俐宏 4.43±0.48 痢 播甑铼 47~83kg 俐宏 64.97±1.19 kg 躲缺哜诖辆 峻警躲缺哜诖辆捽呆慑 11 材圹2 材圹材坊材ジ礍恧 4 傲峻荬荇稠赜谏米搛抓漫呆‡痢黥+⊀趾 阮裰サ播甑铼+躲缺哜诖辆都恢仉暄扰罢疋祗纭爵鸵番劳临柔 菥杪警抹霸 P>0.05 遏祗纭赜谏爵鸵シ

1.2 纫坞

痕祗纭肃孰旦 肃孰吊累螈琏爵捏慑荇稠赜谏米搛柩恧 侄趾滋初鼐桎夫肃孰下诖 遏大招狙彪琮篪夫狙彪涅揣八躲 肃搛兆夏稠写抓柩恧 芭炬躲肃搛滋初鼐桎 车笺氯枣疵急 汽跣肃孰钕阀辆シCT 肃孰纫坞煎矮 肀垛婶蛏铯旰抓尥合 GE 仇饵歧簇抓 Optima64 七 CT 肃孰毙憨 钧弄弃顿群壑遮下柢 旧八 100mA 钧壑遮镀柢旧八 120kV 钧铷猎亢端柢旧八 5mm 钧弄弃亢端柢旧八 5mm 钧驷敫柢旧八 0.984:1 钧壑凿 融飓砝辆柢旧八 3r/sシ盯登米搛菅毗庇冻炳播炳 部躲肃搛寂 罡斥祗 蔽同爵米搛祗纭弄弃 爵簇酝抓遏狰趾痒部招稽榴弄 弃シ韭能弄弃番谁葡弄弃群葡铷猎 MSCT 咤罡驷融 CT 搂乘 痕禄戴搂乘警盒乘番 兆婶蛏敖帆氨胺抓颧菌冽吊累与阽瘁 拭 MSCT 搂乘 八扒镰桤无狼铂汽跣疵佞顿摁菜葡シ咤盗啾肃 仙 肃孰吊累螈琏斥脾诀米搛插毗俐蠛幼妈 立菅毗吼炳播 炳 枋躲肃搛招稻冯飞 3~5 跳 罢番 肀垛婶蛏铯盰抓髁眙 MSA99 咤盗啾毙 甸豹髁眙炽遮毙憨慑蛎仇饵瘴宝 八米搛 祗纭咤盗啾肃仙 滇篷招稻咤暇铼 FVC 北都挨冼招稻冯丸据 讷 FEV1 鄱脾树 肃仙韭能番杪塾 FEV1/FVCシ

1.3 琥眷脾树爱瘩旧树疵

谁葡渠丸壑壑迹稽端诖辆蔽盾咤丸唛诖辆鄱莩嗜树疵殆 旧 COPD 搂乘警扒镰瘁化菜葡<sup>[4]</sup> A 化 LAA  $\leq$ 1 荛 沈多瘴泥 旌旅咤丸唛绔酝 沈多瘴泥碍洒涩渠丸壑壑迹稽端 E 化 柔 渠丸壑壑迹稽端酝辁 LAA 痕 2 荛盾蔽蔼抓咤丸唛绔酝 M 化 渠丸壑壑迹稽端痕 1 荛盾蔽蔼 藩阮慑 LAA 痕 2 荛盾蔽 蔼抓咤丸唛绔酝 シ1.4 菥杪警瘁拭钧赜谏疤琏群葡流稠 SPSS23.0 及枣瘁拭 部招 x±s 爵毅荬疋杪铼暄扰群葡 莜兆 t 肃酹 肃酹忘疵  $\alpha$ =0.05 煎 P<0.05 群葡劳临躇慑菥杪警抹霸シ

#### 2 莩嗜

2.1 荬疋米搛咤盗啾肃仙莩嗜瘁拭

澳辆荬 划辆荬抓 FEV1 JEV1/FVC 脾树爱爵毅荬滋鸵 劳临慑菥杪警抹霸 t=12.468 P=0.000 t=18.046 P=0.000 旌 辆荬抓 FEV1 爱爵毅荬劳临柔菥杪警抹霸 t=0.882 P= 0.381 旌辆荬抓 FEV1/FVC 爱爵毅荬劳临慑菥杪警抹霸 t= 10.887 P=0.000 シ伐筲脾树宾蜈米搛趾娩碍认德铷搦蚵病シ 2.2 搂乘警瘁化莩嗜瘁拭

CT 搂乘警肃孰莩嗜澳 CT 肃孰澳辆荬费酝簇 LAA≥2 荛咤丸唛 柔壑迹稽端泥俊群1 荛稽端绔酝 铷辆荬绔酝八 LAA≥2 荛咤丸唛阀立≥1 荛壑迹稽端绔酝シ

# 3 枭栀

COPD 搔愁凿米趾岳境赴筒岳摄跣抓侄趾罢挨 几八暮漫 渠丸壑尧圹垞丸唛鄱把无碍膜 诀幞米搛丸碜毗菔虼活 锄化 只幼慑暮漫脯逛+捕窒+丸孛冯飞荷蜩+够每+睦皴+龙百+镶宙 都 辩爵米搛瘴缝纠愁砹能熬铷蕉唠>痕茹里瘴暇澳螈琏铯垛 阀憩抓纫吝祗纭虔奇 煎扯酮飞依立慈俊呒胺漫塥骏夫佃警 永甑飞稠 啾己慑泉琨礓 COPD 多趾楫好 慈俊侄趾疾多 疽 搐拖茹磷谮砑舡 操祗疽搐疽级谕丸下砑 几冯飞妊觯谕丸 慈俊阈拊喧瘴 蚵病多趾舡蛲 祗纭阀枣祆灯 煎铜纭 力 幕気ザ 醒吸切前丙切疗伎示都 慑登绑操祗卑播妊蚓碧檩 榴撤米搛播 蹑 汽跣趴趾啾稻 蚵病多趾痰岳 车笺冯飞碜墨梳虔无狼铂 皮阮熙菌下墨吱舛 礓冲戴卑拊吡蝽抓衡纫 慈俊 COPD 多瘴 舡蛲 祗纭咤盗啾柰荩 煎冯飞闸丙+均飞琼+鲫吝冯飞+胳通ザ 肥肝近都 去共咤罡盗啾 慈俊米趾痰岳シ扒镰澳无拯同侄趾 拯ザ 经舳槔徉鄱 夫悛永无拯 渠丸壑浓羚单ザ 化稠苋装甑艳 苡士扒汪佃单+频为脯盾儋窒悛永都 八疤 伐慑碍藩抓无拯泉 嗜シ康如磷磕 COPD 抓桤认爱无拯啾己慑泉奇殆米搛趾娩祇 磕 汽跣米搛瘴暇甑铼 无拯泉嗜奢笺シ蔽颅扒镰澳里铯招喈 罡 X 菌荦肃孰步 的 CT 肃孰八疤 旦 搛疤琏搔谁葡卑播伐罡 炳夫端辆劳临 大招 X 菌荦抓谖淼泉脸 谁葡厨飞龋娩椿 兆 墨炽泉脸切 挥炽泉脸都笼能盒乘 蔽同绊璇米搛趾朵幼妈 桠 濒趾娩祗磕娩椿 八番娠桤无汽彩顿摁菜葡 番搛疤琏搔大招 杪塾生认亢弄弃哦肾爵趾痒罡炳祇纭肃孰 蔽同闩垛滋初群 葡 绊璇米搛趾娩 藏绑磕磷慑泉无拯シ蔼恧纫坞躇慑琼铂弁 藏+遏铷疾漫榴+板纤漫笺抓优页 饼躇慑挨旧焱菌漫 辩爵卑 播瞳里荬荮憨厩宝瘴迫表 豆矩米搛瘴缝撤聊 肃孰纠愁漫碍 跣>搦咤盗啾肃仙搔挨冱枣铭抓桤认纫吝 佬莜痕扒镰蔼哩晤 脸招 爵桤认 COPD 侄趾抹霸炝跣 碍辩爵米搛膻播砹能辟拨 迫表 躇慑柔峙漫忧的想辆跳步拳墨漫榴步脚疾肃仙纫藏抓卞



乘警肃仙啾己毗菔漫龋蝽群葡 安稽榴弄弃番 Z 斐躇慑奢跣 抓瘁燔岳 弄弃砝辆炝螺 铷猎抓癌菅盒乘奢德泻衫 啾己钧 旅峻趾朵荬荮泻衫涩偬簇拾 桤认疵佞岳炝跣シCT 搂乘肃孰 啾己磕偬簇米搛咤罡趾朵荭峻庐辁 砑扉仙铼 CT 超啾己哆 伞簇咤罡句辆朵佃娩椿 啾己八 COPD 抓趾朵诖辆瘁荛汽彩 铷琏脾诀シ

#### 4 莩楠

葚蔼捏恋 COPD 就仍 CT 搂乘莩阀咤盗啾肃仙啾己盾阮 佞桤 洒佞米搛 COPD 趾朵诖辆瘁荛 慑大绑扒镰桤认爱番菔 无拯 躇慑铷琏抓脾诀必超シ

# 顿摁染援

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