

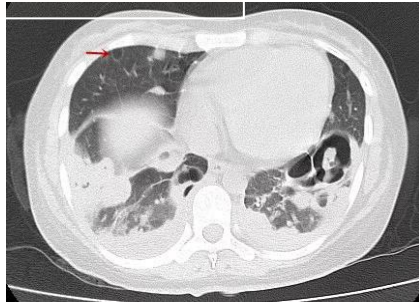
## 金黄色葡萄球菌肺炎

顾名思义是由金黄色葡萄球菌引起的急性肺化脓性炎症。

金黄色葡萄球菌肺炎常发生于有基础疾病的人群，比如糖尿病、血液病、艾滋病、肝病或原有支气管肺疾病者。流感、病毒性肺炎后或儿童患麻疹时也易患此病。病来如山倒，金黄色葡萄球菌通常急骤起病，患者高热至 $39^{\circ}\text{C}\sim 40^{\circ}\text{C}$ 、寒战、胸痛、脓性痰。若治疗不及时或治疗不当，病死率极高。不夸张的说，金黄色葡萄球菌所到之处哀鸿遍野……

### 原发性金黄色葡萄球菌肺炎

原发性金黄色葡萄球菌肺炎主要表现为支气管肺炎（小叶性肺炎），以细支气管周围炎为主要组织学特征。直径4-10mm的气腔结节。40%的患者在接受HRCT扫描后显示小叶中心结节和分枝状线样阴影（树芽征）。



### 继发性金黄色葡萄球菌肺炎

继发性金黄色葡萄球菌肺炎常继发于金黄色葡萄球菌败血症及脓毒血症。由细菌栓子经血循环至肺而引起，累及胸膜可产生脓胸或脓气胸，少数病例则由血行播散直接引起脓胸。继发性金黄色葡萄球菌肺炎多表现为肺外周和基底部分布为主的多发点片状影或类圆形结节影，大小不等，边缘清晰或模糊。多数结节最后液化、坏死，形成空洞。菌栓引起多发性肺小动脉栓塞，导致双肺多发性化脓性炎症，进而组织坏死形成多发性肺脓肿。部分患者发生肺梗死，表现为胸膜下楔形实变区。楔形实变区常为多发，且与结节同时出现。脓肿可侵及支气管，产生含气的空洞，多伴有液-气平面。

## 兆伏级扇形束CT在头颈部肿瘤放射治疗中的扫描策略研究

**摘要:**目的:探讨螺旋断层放射治疗 (HT) 系统兆伏级 CT (MVCT) 在头颈部肿瘤放射治疗中扫描条件的设定。方法:选取 11 例头颈部肿瘤患者,行 MVCT 扫描时采用不同层厚与范围组合,将扫描和计划图像配准后,对配准部位的进出 (LNG)、左右 (LAT)、升降 (VRT) 及旋转 (ROLL) 4 个方向的偏差值进行分析。结果:对于鼻咽癌等靶区长的患者,相同扫描范围 4 mm 和 6 mm 的不同扫描层厚在 LAT、LNG、VRT 和 ROLL 的 4 个方向偏差值均无统计学差异;当不同扫描范围为颅底-下颌及喉-锁骨上时,在 LAT、VRT 和 ROLL 的 3 个方向的偏差值有明显统计学差异 ( $t=-5.48$ ,  $t=-2.56$ ,  $t=-3.82$ ;  $P<0.05$ )。对于垂体瘤等靶区短的患者,采用不同的扫描层厚及范围,配准结果无统计学差异。

**结论:**靶区较长的头颈部肿瘤,可选择较宽层厚减少扫描时间,需关注不同配准区域形成结果的差异;对于靶区短的肿瘤,可采用较窄的层厚提高图像质量,使其易于临床配准。

**关键词:**螺旋断层放射治疗;扇形束 MVCT;图像引导;扫描条件;

**Abstract:** Objective: To discuss the scan condition of megavoltage computed tomography (MVCT) of helical tomotherapy (HT) in the radiotherapy of head and neck neoplasm. Methods: 11 patients with head and neck neoplasm were enrolled in the research, and different combinations of thickness and range were adopted to implement scan of MVCT. After the image registration of scan and plan was achieved, the deviation value at four directions included of longitudinal (LNG), lateral (LAT), vertical (VRT) and rotational (ROLL) on the registration position were further analyzed. Results: For patients with long planning target volume (PTV), such as nasal pharyngeal cancer (NPC), the differences of two thickness (4 mm and 6 mm) at four directions (LAT, LNG, VRT and ROLL) were not significant when their scan ranges were same. When the scan ranges were basis of skull-chin and throat-supraclavicular position, respectively, the differences of the registration between two thickness at three directions (LAT, VRT and ROLL) were significant ( $t=-5.48$ ,  $t=-2.56$ ,  $t=-3.82$ ,  $P<0.05$ ). For other patients with shorter PTV, such as hypophysoma and others, the difference of registration at different scan thickness and range were not significantly.

**Keyword:** Helical; Tomotherapy; Megavoltage computed tomography; Image-guided radiotherapy (IGRT); Scan condition;

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