

• 临床病理讨论 •

Clinicopathological Confernce

An 86 year old man with a shadow at upper lobe of lung and a mass at buttock

(The 17th case)

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Case presentation

The patient was an 86 year old man. He was admitted to the Chinese PLA General Hospital on February 6, 2005 because of a shadow at upper lobe of left lung for 14 months and an egg-sized mass at left buttock for 2 days.

In December 2003, a thin patchy shadow at upper lobe of left lung was found by X-ray, and none treatment was given. The patient has suffered from cough with fresh blood and red-black clot in sputum since August 5, 2004. The CT of lung on August 27, 2004 showed the enlargement of shadow (3.5cm×4.0 cm) at upper lobe of left lung and a cavity in it (as showed in Fig 1). Percutaneous pneumocentesis under guiding of ultrasonic technique was performed on Sept 3, 2004 and a poorly differentiated adenocarcinoma was detected. Radiotherapy with X-ray (the total dose reached 60 Gy) was performed because the mediastinal lymph nodes were invaded. Then the hemoptysis was cured, the mass in lung on CT shrank obviously.

The patient complained of pain at left buttock on Feb 6, 2005 and an egg-sized hard tender mass was palpated at this site. Pelvis MRI scanning in General Hospital of Beijing Military Area showed a mass of 3.5cm×4.0cm×4.5 cm in size, which was encircled by a thin capsule. The head of femur, ischium and acetabulum were not involved (Fig 2).

On admission, the temperature was 37.9℃, the blood pressure 170/80 mmHg, the pulse 82/min, and the respiratory rate 18 per minute. His

general condition was still all right, with no cyanosis. The superficial lymph nodes could not be palpated. The respiration sound of lungs was clear, and the heart rhythm regular, without murmurs. The abdomen was soft, slightly bulged, without sifting dullness. The liver and spleen were not palpable. There was moderate pitting edema of legs and feet. An egg-sized hard tender mass, with little mobility was felt at outer upper part of left buttock.

Anamnesis included hypertension, coronary heart disease, carcinoma of urinary bladder and transitional cell carcinoma of left ureter.

The patient had fever after admission. The laboratory findings on admission showed a white blood cell count of $13.4 \times 10^9/L$, neutrophil 0.82. After anti-infectious treatment, the temperature became normal, but the mass in buttock became enlarged with severe pain. PET of lungs showed carcinoma of upper lobe of left lung after radiotherapy with abnormally high metabolism foci in left hilus of lung, mediastinal lymph nodes and left buttock. The results suggested multiple metastasis of lung carcinoma. In order to make right diagnosis, biopsy of the buttock mass was performed under ultrasonography in March 2005, and the pathological report was poorly differentiated adenocarcinoma, which probably metastasized from lung. Three-dimensional radiotherapy with total dose of

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66Gy (2.2Gy×30 times) was performed. The pain relieved significantly and the size of the mass reduced on MRI on May 9, 2005. Later, targeting

chemotherapy with Iressa and Tarceva was followed and the mass remained unchanged on MRI.

Clinical and pathological discussion

Dr. Kang Chunyan: The features of this case were as follows: 1) Elderly male; 2) Anamnesis included hypertension, coronary heart disease, carcinoma of urinary bladder after operation and transitional cell carcinoma of left ureter; 3) An egg-sized hard tender mass with little mobility was felt at left buttock; 4) A mass of 3.5cm×4.0cm×4.5cm in left great gluteal muscle on MRI, which was encircled by a thin capsule, the head of femur, ischium and acetabulum were not involved. White blood cell count was $13.4 \times 10^9/L$, neutrophil 0.82. High metabolism foci in left hilus of lung, mediastinal lymph nodes and left buttock on PET; 5) The patient had fever after admission. After anti-infectious treatment, the body temperature improved gradually, but the mass became enlarged with severe pain; 6) Biopsy reported metastatic carcinoma from lung. Radiotherapy and chemotherapy made the progress slow down. As a whole, the case was rare in clinical practice, so we thought that it is worthy to be discussed.

Dr. Li Hongxia: Since the patient had a history of long-term intramuscular injection at buttock, plus fever and a tender mass, we had highly suspected that the mass was due to organization after local infection. However, the anamnesis of lung poorly differentiated adenocarcinoma made us consider the possibility of metastatic carcinoma in great gluteal muscle although this was very rare, so biopsy of the mass was performed, and the final pathological report proved that the mass was due to metastasis of lung carcinoma. The case calls our attention to that metastatic carcinoma should be considered and diagnosed promptly by pathological biopsy when the patient had a history of carcinoma and abnormality on image displayed.

Dr. Liu Changting: It is rare in clinic that lung carcinoma metastasizes to skeletal muscles. Only 8 in 747 cases of autopsy of lung carcinoma had metastasis to skeletal muscles in some reports. It has been more rare at home and abroad that the great gluteal muscle was involved. Clinical and postmortem data showed that carcinoma may metastasize to every organ, but the incidence of metastasis of carcinoma to skeletal muscle accounted for only 0.04% of hematogenous metastasis, and usually occurred in patient with leukemia, lymphosarcoma, malignant melanoma, and thyroid cancer, etc. The mechanism of metastasis of carcinoma to skeletal muscle has no satisfactory conclusion. By animal experiment, someone considered that mechanical movement of skeletal muscle may be the cause of rare metastasis of the cancer, but this hypothesis could not explain the high incidence of metastatic carcinoma to heart which is small in size and has mechanical movement at faster rhythm. Some authors suggested that the lactic acid in skeletal muscle might be unfavorable to the growth of carcinoma, and other experiment found that the skeletal muscular cells could synthesize and secrete the substance with anti-cancer activity which might inhibit growth of carcinoma. Djaldetti et al also detected a low-molecular substance with anti-cancer activity in skeletal muscle conditional culture medium and considered that this substance may be the mechanism of resisting metastatic tumor formation in skeletal muscle.

Dr. Yu Senyang: The route of metastasis of lung carcinoma includes lymphatic system and blood. The organs involved in blood metastasis include liver, bone, adrenal gland, brain, kidney, etc. It is rare that the great gluteal muscle is involved. Some data showed that the patient might pass away months or one year later after the diagnosis of metastatic carcinoma in skeletal muscle, indicating that the metastasis of the cancer to

skeletal muscle occurs in late stage of the patient. The treatment should include extensive resection of the metastatic carcinoma in skeletal muscle and lung cancer, and combined treatment (radiotherapy, immunotherapy and chemotherapy) after op-

eration. In this case, as the patient was of advanced age with many underlying diseases, only radiotherapy and targeting chemotherapy were given, but with good effect.

(Translator: HOU Yuntian)

肺上叶阴影伴臀部包块一例

1 病例摘要

患者男性,86岁,主因发现左上肺阴影14个月,左臀部包块2d入院。缘于2003年12月体检胸片示左上肺淡薄片絮影,当时未行治疗,于2004年8月5日开始出现咳嗽,痰中带鲜红及暗红色血块,2004年8月27日肺CT示左上肺阴影增大明显,大小为3.5cm×4.0cm左右,并有空洞形成(图1)。2004年9月3日来我院,行超声引导下经皮肺穿刺术,病理结果回报为低分化腺癌。由于当时已出现纵隔淋巴结转移,未行手术,行X刀放疗,共放疗60Gy,咯血症状完全缓解,复查胸部CT肿瘤明显缩小。2005年2月6日患者自觉左臀部疼痛,发现左臀部外上可触及一鸡蛋大小包块,质硬,有触痛。于北京军区总医院行骨盆MRI平扫示:左侧臀大肌内3.5cm×4.0cm×4.5cm大小肿物,周围有环形薄壁低信号“包膜”,病灶对股骨头、坐骨及髌臼无侵犯(图2)。



图2 骨盆MRI

入院查体:体温37.9℃,脉搏82次/min,呼吸18次/min,血压170/80mmHg。一般情况可,神志清楚。浅表淋巴结未扪及。口唇无发绀,咽红,双侧扁桃体无肿大。听诊双肺呼吸音清,未闻及干湿性啰音,心律齐,无杂音。腹部略膨隆,未见胃肠型及蠕动波,移动性浊音阴性,腹软,无压痛及反跳痛,未扪及包块,肝脾肋下未触及,双下肢轻度压陷性水肿,左臀部外上可触及一鸡蛋大小包块,触诊光滑,质硬,有触痛,无放射痛,活动度不大。既往有高血压、冠心病、膀胱癌术后、左输尿管移行细胞癌等病史。

患者入院后发热,血常规检查示:WBC 13.4×10⁹/L,N 0.82,给予抗感染治疗,体温逐渐好转,但臀部包块进行性增大,而且疼痛较前有加重,行PET检查示:左上肺肺癌放疗后,左肺肺门及纵隔淋巴结、左侧臀部异常高代谢灶,考虑肺癌多发转移可能性大。为进一步明确臀部包块性质,2005年3月行超声引导下左臀部病灶穿刺活检术并送检病理。病理结果为低分化腺癌,为肺癌转移所致,行三维适形放疗,共给予66Gy(2.2Gy×30次),放疗后臀部包块处疼痛明显减轻,包块有明显缩小。放疗结束后于2005年5月9日,经MRI检查臀部包块

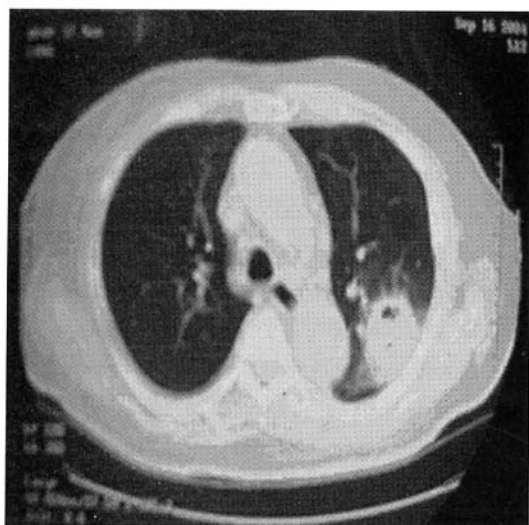


图1 胸部CT

较前明显缩小。之后,患者先后服用靶向治疗药物 Iressa 及 Tarceva 治疗, MRI 复查臀部包块处未见肿瘤继续增大。

2 临床病理讨论

康春燕医师:该病例特点包括:(1)老年男性;(2)既往明确诊断为左上肺低分化腺癌伴纵隔淋巴结转移,并有高血压、冠心病、膀胱癌术后、左输尿管移行细胞癌等病史;(3)本次主因发现左臀部包块 2d 入院,此包块触诊光滑,质硬,有触痛,无放射痛,活动度不大;(4)外院行骨盆 MRI 平扫示:左侧臀大肌内 3.5cm×4.0cm×4.5cm 大小肿物,周围有环形薄壁低信号“包膜”,病灶对股骨头、坐骨及髌臼无侵犯,入院后血常规检查示:WBC $13.4 \times 10^9/L$, N 0.82, PET 检查示:左上肺肺癌放疗后,左肺门及纵隔淋巴结、左侧臀部异常高代谢灶,考虑肺癌多发转移可能性大;(5)入院后患者发热,给予抗感染治疗,体温逐渐好转,但臀部包块进行性增大,而且疼痛较前有加重;(6)经臀部病灶穿刺活检,病理证实包块为肺癌转移所致,行放射治疗及靶向治疗后病情稳定。该病历在临床极为罕见,因此我们就其诊治加以探讨,希望能够引起大家重视。

李洪霞副主任医师:在此患者入院之初,由于其有长期肌肉注射史(有时操作相对不规范),家属反映臀部包块出现部位与肌注部位有重叠,且患者有发热,包块有触痛,我们曾高度怀疑包块是否为局部感染后机化所致,但该患者有肺低分化腺癌病史,尽管臀大肌转移极为罕见,我们还是认为这种可能性几率很高,因此进行了病灶穿刺活检术并送检病理,最后病理证实确为肺癌转移所致。这给予我们的临床工作很大提示,对于有明确肿瘤病史的病人,影像学发现异常病灶时一定要警惕转移情况,必要时应通过病理活检证实病变性质,以便及时明确诊断,进行相应处理。

刘长庭教授:肺癌的骨骼肌转移临床罕见,在 747 例肺癌尸检中,仅发现 8 例骨骼肌转移^[1],而其中臀大肌转移在国内外报道中更为罕见。临床及尸检资料表明,恶性肿瘤几乎可转移至机体所有器官,但骨骼肌中转移瘤罕见,仅占血源性转移瘤的 0.04%。并主要在白血病、淋巴瘤、恶性黑色素瘤、甲状腺癌等恶性肿瘤的尸检中偶然发现^[2]。关于恶性肿瘤骨骼肌转移的机制,国内外尚无满意的

研究结论,有人通过动物实验观察,认为骨骼肌机械运动可能是其罕见转移瘤的原因^[3],但这种观点无法解释体积小而又不断运动的心脏转移瘤比骨骼肌常见的现象^[4]。还有报道认为骨骼肌组织乳酸的环境也不利于肿瘤细胞的生长。在罗成华等^[5]的实验中观察到新生大鼠骨骼肌细胞可合成并分泌抑瘤活性物质,对恶性肿瘤细胞具有广泛而特异的抑制作用。以色列学者 Djaldetti 等^[6]在骨骼肌细胞培养基中亦检测到低分子抑瘤活性物质,认为这种抑瘤物可能是骨骼肌抵御转移瘤形成的机制。

俞森洋教授:肺癌转移的主要途径是淋巴转移,其次是血行转移,血行转移常见部位为肝、骨、肾上腺、脑、肾等,臀大肌转移甚为罕见。多数报道发现恶性肿瘤骨骼肌转移者死于数月或 1 年以内,表明骨骼肌转移瘤即使发生,亦在肿瘤病人病程晚期。关于肺癌出现骨骼肌转移后的治疗,杨蕴等^[7]认为应采取积极的综合治疗,包括骨骼肌转移瘤广泛切除术和肺癌切除术,术后辅助综合治疗(化疗、免疫治疗和放疗)。本例患者由于高龄,有多种基础疾病,故只进行了放疗和靶向药物治疗,但仍取得了较好疗效。

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