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1 ml去甲肾上腺素和等量台盼蓝至5 ml后呈圆形或椭圆形蓝染[3]，而成纤维细胞则扁平而稍大，胞质透明，无收缩反应，长时间培养后在培养基上呈同心圆旋涡状生长。本实验中A、B瓶细胞出现此情况，C瓶未出现该情况。免疫组化鉴定，因平滑肌细胞中含有大量肌动蛋白，肌动蛋白单克隆抗体进入细胞内与肌动蛋白结合，继而与二抗、S-P复合物结合染成棕黄色，而成纤维细胞内无肌动蛋白，故不显色。本实验中，经免疫组化染色后数200个细胞，仅见4个细胞未着色，判断细胞纯度约为96%。在电镜下，成纤维细胞的胞质中无饮泡，无密斑密体，亦没有束状的微丝管，而有许多高尔基体。

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Culture of rat pulmonary artery smooth muscle cells*

Wang Guansong, Yang Xiaojing, Qian Guisheng, Hu Yide, Lan Yangjun (Institute of Respiratory Disease, Xinqiao Hopsital, Third Military Medical University, Chongqing, 400037)

Abstract **Objective**: To culture rat vascular smooth muscle cell (VSMC). **Methods**: Pulmonary artery were separated carefully and cut into fine tissue pieces. These pieces used for culture of VSMC by method of adhesion to wall. **Results**: Cell cultured were typical form of VSMC under light microscope, electron microscope and immunohistochemical test. The cell viability is 95% in subculture by trypan blue. The cell purity is 96% by immuohistochemical method. **Conclusion**: This method is simple and convenient. It provides ideal materials for vascular physiopathologic studies.

Key words rat; pulmonary circulation; pulmonary artery; cell culture

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肺原发性恶性纤维组织细胞瘤一例

A case report of primary malignant fibrous histiocytoma of lung

宫 亮** （第三军医大学附属西南医院呼吸内科）重庆，400038

患者男性，63岁，因右胸痛2月，加重伴咳嗽2周入院。查体患者较消瘦、颈前后、锁骨上、双腋下及双腹肌沟未扪及肿大淋巴结，气管居中，右第四前肋、第七后肋以下叩浊，右中、下肺野呼吸音低，胸部X片示右后胸壁包块、呈椭圆形。CT提示①右中肺叶紧邻心缘旁见约4 cm×6 cm片块状影，其内有稍低密度区，与心右缘间可见脂肪间隔。前界与前胸壁紧邻；②右下肺见约7.5 cm×9 cm片块样影，块影内可见小片状稍低密度区，其前仍有透光区，后侧紧邻后胸壁，内侧紧邻脊椎；③左下肺外段见片状稍高密度影，并以宽基底与胸壁相邻，其内见点状低密度影，边缘有角状突出和毛刺样改变。查痰未见癌细胞，行纤维支气管镜检查未见腔内异物。行经皮右肺穿刺活检及胸膜活检，病理检查见瘤组织由成片瘤细胞构成，瘤细胞排列呈编织状、漩涡状。瘤细胞圆、卵圆、梭形，浆中量、核深染，可见核分裂像，间质较多炎细胞浸润。免疫组织化学染色示组织细胞抗原染色（+），α-抗胰糜蛋白酶（+），细胞角蛋白（−）。病理诊断肺恶性纤维组织细胞瘤累及胸膜。因患者不愿接受化疗出院，现随访1月尚存活，但一般情况差，肺内已有广泛转移。最后诊断为右肺恶性纤维组织细胞瘤伴右胸膜累及；慢性支气管炎；慢性阻塞性肺气肿；双上肺大泡。

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** 宫 亮，男，26岁，主治医师，学士

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Changes of myocardial matrix collagen and cardiac function during ventricular dilatation and recovery from rapid right ventricular pacing in dogs

Zhang Guisheng, Li Longgui, Li Jianhua, Tang Donghong (Department of Cardiology, Xinqiao Hospital, Third Military Medical University, Chongqing, 400037)

Abstract Objective: To observe the changes of myocardial matrix collagen content and type Ⅰ/type Ⅲ collagen ratio and the changes of cardiac function during ventricular dilatation and recovery in dogs. Methods: 17 dogs were randomized into the pacing group (P, $n=6$) with the right venricle pacing continuously with a rate of 250/min for 4 weeks, the reverse group (R, $n=6$) undergoing recovery for 4 weeks after 4 weeks of right ventricular pacing and the control (C, $n=5$). Hemodynamics, echocardiography and the collagen content of myocardial matrix and the type Ⅰ/type Ⅲ collagen ratio were determined in groups P and R respectively and after a week pseudo-manipulation in group C. Results: The mean pulmonary capillary wedge pressure, mean right atrial and ventricular pressures and collagen content were increased significantly and cardiac output, mean arterial pressure, left ventricular ejection pressure and collagen type ratio decreased significantly in group P ($P<0.05$); and all the hemodynamic parameters and changes of collagen content and collage type ratio recovered correspondingly in group R as compared with those of group C. Conclusion: The collagen content of myocardial matrix is increased and collagen type ratio decreased after the deterioration of cardiac function and ventricular dilatation. After the stopage of pacing, the ventricular dilatation is regressed and cardiac function improved, the change of myocardial collagen can be reversed in different degrees in dogs.

Key words cardiomyopathy/pacing-induced; collagen; cardiac function; dog

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讨论

恶性纤维组织细胞瘤(MFH)是一类软组织肉瘤[1],Bertoni 等根据其病理组织学特点将该病分为6型——度纹状型、席纹—多形型、粘液型、炎症型巨细胞型和组织细胞型;而 Kempson 和 Kyriakos 等根据组织成分又将其分为4型——纤维型、巨细胞型、炎症型和粘液型。本例其镜下所示为瘤细胞呈编织状、漩涡状分布,可见圆形、卵圆形、梭形的组织细胞样和纤维母细胞样瘤细胞,纤维间质内见较多炎细胞浸润。

肿瘤组织发生来源:看法不一。1963年 Ozzello 等认为组织细胞在某些环境和刺激下获得纤维母细胞的形态和功能能分化成纤维母细胞样和组织细胞样瘤细胞。而1975年 Fu 等提出肿瘤组织来源于分化间叶组织,在不同环境和刺激下,形成系列细胞学类型的 MFH 谱,也可能向脂肪,横纹肌及平滑肌方向分化,故肿瘤内除组织细胞样和纤维母细胞样瘤细胞外,有时也可见平滑肌或肌纤维区域,也可见未分化瘤细胞分布[2]。

免疫学研究:MFH 病理形态多种多样,有时镜下难以与多形性横纹肌肉瘤、脂肪肉瘤、纤维肉瘤、肺癌等鉴别。目前可通过免疫组化技术,通过各种肿瘤标志物加以进一步区分。现较多研究表明,α_1-抗糜蛋白(ACT)酶、α_1-抗胰蛋白酶(AAT)可作为 MFH 的较特异标志物[3],且与肌红蛋白、结蛋白及 S-100等无交叉反应。故 AAT 和 ACT 阳性对 MFH 有一定诊断价值,阴性时可基本排除 MFH 可能性;同时单克隆波纹蛋白在 MFH 中也呈现不同程度的阳性反应,这也为 MFH 来源于间叶组织的看法提供了一定证据。本例经免疫组化提示组织细胞抗原染色(+)、α_1-抗胰、糜蛋白酶(+)、细胞角蛋白(−)。

治疗及预后:目前尚无特效治疗,多数学者认为有手术指征时以尽早手术为佳,术后辅以化疗或放疗;亦可先放、化疗,再行手术。

关键词 肺肿瘤;恶性纤维组织细胞瘤

中图法分类号 R734.2

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