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The study on the functions of the diaphragm in 5 years

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Abstract The study on the functions of the diaphragm has been carried on for 5 years. It consisted of the studies on the relationship of the tension and endurance of inspiratory muscles with pulmonary functions, the changes of diaphragmatic electromyogram in maximal ventilation volume test in normal subjects and patients with chronic obstructive pulmonary disease (COPD), the functional changes of the diaphragm in dogs with RDS and the therapeutic effects of aminophylline, the changes of diaphragmatic electromyogram in dogs with hypoxemia and hypercapnia, determination of transdiaphragmatic pressure, the relationship of the stimulation frequency on the phrenic nerve with diaphragmtic fatigue, etc. It was found that there existed diaphragmtic fatigue in dogs with RDS, in dogs with hypoxemia and hypercapnia, and in patients with COPD, and aminophylline, digoxin, salbutomal β-receptor excitory agents can minimize or prevent diaphragmatic fatigue.

Key words reapiratory distress syndrome; diaphragm; digoxin; albuterol; aminophylline; pulmonary function; transdiaphragmtic pressure; diaphragmatic electromyogram

泌尿生殖器分泌物涂片发现革兰氏阴性双球菌的意义

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革兰氏阴性双球菌包括奈瑟氏菌属及布兰汉氏菌属。其中布兰汉氏菌属的代表菌种为卡他布兰汉氏菌，另有3个未定种的为豚鼠布兰汉氏菌，羊布兰汉氏菌和兔布兰汉氏菌。奈瑟氏菌属包括脑膜炎奈瑟氏菌、淋病奈瑟氏菌、淡黄色奈瑟氏菌及粘膜奈瑟氏菌。该属细菌中只有淋病奈瑟氏菌是引起淋病的病原菌。

取患者的分泌物作涂片染色，以油镜观察发现革兰氏阴性双球菌对诊断淋病占有重要地位[1]。但对少数病人或者看见非典型的细菌形态时，即便找到革兰氏阴性双球菌也并非诊断淋病的确证手段。近年来我们对224例（男88例、女136例）从泌尿生殖器分泌物当中找到革兰氏阴性双球菌的患者分别进行培养鉴定，发现二者结果不完全相一致。现报告如下。

1 材料与方法

1.1 标本来源

所检标本均系我院门诊及住院病人的尿道、阴道等处分泌物获得。每例患者均取双份标本分别立即作革兰氏染色和培养鉴定。

1.2 革兰氏染色

将其中1份标本涂沫玻片，微火焰固定后行革兰氏染色，同时以大约等量的革兰氏阴性和阳性细菌涂片作质控。以油镜观察见有典型的革兰氏阴性，肾形排列，可报告为找到革兰氏阴性双球菌。

1.3 培养和鉴定

所取标本均以铂金环床旁接种至美国 Difcol 公司生产的 GC 培养基及桂敏培养基琼脂平板上，置 CO_2 环境，以36℃培养24～48 h 观察菌落形态，取呈圆形，表面光滑，灰白色、半透明。直径1mm 左右的菌落作氧化酶试验。将氧化酶阳性的菌落制备涂沫标本，进行革兰氏染色，油镜下见有革兰氏阴性，肾形排列的双球菌即进一步转种获得纯培养。最后作

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The state of immunological functions of breast cancer patients and the effects of surgery and radiotherapy

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Abstract The dynamic changes of the T cell subsets in the peripheral blood and the serum level of immunoglobin and complement C_3 were observed in 32 breast cancer patients before and after surgery and after radiotherapy. 20 patients with benign breast diseases and 20 normal women were observed likewise. It was found that the T_S cells and serum IgG and IgA were significantly increased and the T_H/T_S ratio markedly decreased in the breast cancer group as compared with those of other 2 groups. In the first postoperative week, T_H cells and T_H/T_S ratio were markedly decreased in all cases operated on. One month after operation, all the parameters returned nearly to the normal level in the group with benign breast diseases. In the group without radiotherapy, the proportion of OKT_3^+ cells in the 3rd postoperative month and OKT_4^+ cells in the 6th postoperative month exceeded the preoperative level while that of OKT_8^+ cells decreased. In the first week after radiotherapy, T_H cells decreased, T_S cells increased and T_H/T_S ratio decreased significantly. Meanwhile serum IgG was elevated. OKT_3^+ cells markedly increased in the 6th month after radiotherapy and OKT_8^+ cells decreased 1 year after that. The immunoreactive state of breast cancer patients and the effects of therapeutic measures on them were discussed.

Key words breast neoplasms/SU; T Lymphocytes; immunoglobins; radiotherapy

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生化鉴定。淋病奈瑟氏菌触酶阳性[2]，发酵葡萄糖，而不发酵蔗糖和麦芽糖，此试验可与其它奈瑟氏菌相鉴别[3]。

2 结果与讨论

224 例患者镜下找到革兰氏阴性双球菌，经培养鉴定后有 213 例为淋病奈瑟氏菌占 95.1%，其中男性患者 88 例有 85 例为淋病奈瑟氏菌占 96.6%；女性患者 136 例有 128 例为淋病奈瑟氏菌占 94.1%。从细胞内找到革兰氏阴性双球菌的患者 132 例，经培养鉴定后全部为淋病奈瑟氏菌（其中男性患者 84 例、女性患者 48 例）。从细胞外找到革兰氏阴性双球菌的患者 92 例，经培养鉴定后有 81 例为淋病奈瑟氏菌，占 88%；其中男性患者 27 例有 24 例为淋病奈瑟氏菌，占 88.9%；女性患者 65 例有 57 例为淋病奈瑟氏菌占 87.7%。由此可见，镜下找到革兰氏阴性双球菌显然不能作为诊断淋病的确证手段。只有从细胞内找到典型的革兰氏阴性双球菌才可考虑淋病的诊断。从细胞外找到革兰氏阴性双球菌则不然，无论是男性或女性均有淋病奈瑟氏菌以外的革兰氏阴性双球菌存在，特别是女性患者阴道内常因杂菌混淆而不易鉴别。为此笔者建议：对细胞外找到革兰氏阴性双球菌的患者在有条件的实验室最好培养鉴定后确定诊断而不可盲目定论。

关键词 革兰氏阴性菌；泌尿生殖系统

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