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Study of deglucemic effects of sodium vanadate, insulin receptors and glucose uptake in diabetic rats

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Abstract In order to investigate the mechanism of deglucemic effects of sodium vanadate, the seurm level of glucose, lipid and insulin, the changes of insulin receptors on the cell membrane of skeletal muscles and the uptake of 2-deoxyglucose in the cells of skeletal muscles were observed in streptozotocin-induced diabetic rats before and 4 weeks after the administration of sodium vanadate. It was found that sodium vanadate significantly ameliorated the metabolic disorder of glucose and lipid without increasing insulin secretion and markedly improved glucose uptake of skeletal muscles without changing significantly the number and affinity of insulin receptors. These findings suggest that the insulin-like effects of sodium vanadate are related to the response in postreceptor level, that is, the increase of glucose uptake and utilization in peripheral tissues.

Key words diabetes mellitus; sodium orthovanadate; insulin receptor; 2-deoxyglucose

易变微球菌菌血症一例

A case of bacteriemia of *Micrococcus Varians*

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易变微球菌通常被认为是非致病菌,由此菌引起的全身性感染更为罕见,现将我们所见的一例菌血症报道如下。

1 病例摘要

患者谯××,女,42岁。牙龈出血10多天,月经淋漓不止,持续7日不净;排血尿、黑色大便;并伴有头昏、乏力、心慌。体检:牙龈溃烂出血,颈部和四肢皮下有散在性瘀点或瘀斑。此外,患者尚患有子宫肌瘤。血液化验:Hb 66 g/L,RBC 2.28×10^{12},WBC 2.3×10^{9}/L,N 0.65,L 0.34,PLT 24×10^{9}/L;结合骨髓检查,确诊为再生障碍性贫血。入院后患者突然发热39℃,采血培养,检出易变微球菌。经及时用头孢菌素,得以控制、好转。

2 细菌的生物学性状

①培养特性:患者静脉血经肉汤培养基35℃增菌培养5 d,出现均匀混浊,表面有薄菌膜;分离接种于血琼脂平板,经35℃培养24 h,长出纯一的0.5 mm大小、圆形、凸起、光滑、淡黄色菌落,菌落周围有狭窄的草绿色溶血环。菌落在生理盐水中不易乳化。本菌在含10%NaCl培养基中仍可生长;但在厌氧环竟中,在42℃条件下均不能生长。②形态学特点:革兰氏染色为阳性,正圆形,多呈四联体排列,亦有少数成双或为不规则堆团。③生化反应性能:无动力,能分解葡萄糖、乳糖、麦芽糖、蔗糖、木糖产酸,分解尿素,水解马尿酸盐,还原硝酸盐,触酶阳性;但氧化酶、H_2S、靛基质、精氨酸等试验均为阴性。本菌对溶菌酶表现敏感。④药敏状况:对羧苄青霉素、氨苄青霉素、头孢噻肟钠敏感,对青霉素、苯唑青霉素、复方新诺明、红霉素、合霉素等耐药。

3 讨论

综观上述生物学性状,对照文献[1,2]所述,确认本菌不是藤黄微球菌,也非玖瑰微球菌,而是易变微球菌;但通常认为该菌对溶菌酶有抗力[2],而本例易变微球菌对溶菌酶敏感。

易变微球菌多存在于牛奶、乳制品以及尘埃、土壤中,一般不致病,但由于病人患再生障碍性贫血和子宫肌瘤,免疫力下降,该菌得以乘虚而入,引起菌血症。本例提示,再生障碍性贫血患者加强抗感染措施是必要的。

关键词 易变微球菌;菌血症
中图法分类号 R378.1

参考文献

1 Sydney MF, Willian JM. Bailey and Scott's Diagnostic Microbiology. 6th ed. London: The C. V. Mosby Co., 1982: 166
2 Buchanan RE, Gibbons NE. Bergey's Manual of Determination Bacteriology. 8th ed. Baltimore: Willians and Wilkin Co., 1974: 179

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