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Studies on the morphological and functional changes of 1/6-Kindney remnant in rats

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Abstract The morphological and functional changes of 1/6-kidney remnant were observed with optical and electron microscopy and electron-spin-resonance spectroscopy in rats in which 5/6 of kidneys had been resected. An increase of the content of free radicals in the remnant kodney and the plasma content of urea nitrogen and creatinine and marked infiltration of mononuclear cells in the remant kidney were found on the 30th day after subtotal nephtectomy; renal glomeruli were enlarged on the 60th day; glomerular and interstitial fibrosis , dilatation of renal tubules with protein sediment in the lumen, thickening of the filtration membrane and fusion of the podocyte processes were found on the 120th day. There were no similar changes in the kidney with sham operation and in 5/6-Kindey remnant. It was believed that the morphological changes might result in certain extent from the harmful effects of the increased renal content of oxygen-derived free radicals.

Key words kideney failure, chronic; free radicals; disease models, animal; rat

戴角膜接触镜并发绿脓杆菌性角膜溃疡

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角膜接触镜具有独特的优点,近几年已被广泛地配戴,尤其受到青年人的青睐。同时并发症也常有发生,甚至造成严重后果,现报道1例如下。

邝××,男,28岁。住院号168262。因左眼红痛、畏光、流泪4 d,加重伴视力剧降1 d入院。发病前配戴角膜接触镜1年余,矫正视力1.5(双)。入院时查:痛苦面容;视力:右0.3(矫正1.0),左眼前手动。左睑红肿明显,结膜混合充血(卅),水肿(卄),结膜囊大量黄绿色分泌物。角膜水肿,中央8 mm×6 mm溃疡。前房混,见2 mm脓性液平。虹膜模糊。瞳孔散大(药物性),晶体、眼底不清。右眼(－)。细菌培养:绿脓杆菌生长。诊断:绿脓杆菌性角膜溃疡。治疗:庆大霉素、维生素C静滴;0.1%多粘菌素B、2%庆大霉素、2500 u/ml肝素、1%阿托品点眼及口服维生素E、AD等。17 d后溃疡基本愈合,辅以消蒙眼膏,狄奥宁眼液,角膜水肿逐渐消退。住院40 d,出院时右0.3(矫正1.2),左0.04。左睑(－),结膜充血(＋),角膜周边透明,中央区轻度混浊,前房清,Tyn(－),瞳孔散大,眼底模糊。3月后复诊,左0.3,角膜中央仅见薄云衣。

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Effect of insulin mediator on phosphodiesterase after scalding in rats

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Abstract An insulin chemical mediator with a molecular weight of 3000～3500 Da was prepared from hepatic plasma membrane of rats and it can stimulate the activity of cAMP-phosphodiesterase (cAMP-PDE) of the adipocytes of both normal and scalded rats in a dosage-dependent manner. It was found that the activity of cAMP-PDE was increased by 6 times in the control but only 1.24 times in the scalded rats; the difference between the 2 groups was statistically significant ($P<0.001$). The findings suggest that the response after of cAMP-PDE to the stimulation of the insulin mediator is greatly decreased scalding, which may involve the defects of postreceptor events in insulin resistance.

Key words burns; insulin mediator ; phosphodiesterases; insulin resistance

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讨论

绿脓杆菌性角膜溃疡是配戴角膜接触镜最严重的并发症。起病急，发展快，常致角膜穿孔及视功能毁坏。以往治愈后也常留角膜大白斑严重影响视力。近年研究表明，自由基及其代谢产物是角膜溃疡病理损害因素之一，抗氧化剂治疗可减轻角膜损害[1]。本例患者经大剂量抗生素及抗氧化剂(vit.C、E、肝素)治疗，很快控制炎症并短期内溃疡修复。并见痊愈后角膜仅留薄云衣，保存了一定的有用视力。通过本例患者治疗，我们认为：(1)配戴角膜接触镜要严格卫生条件，不要延时配戴，有不适要暂停戴镜，点抗生素眼液或及早就医防止严重并发症发生。(2)对于角膜溃疡的治疗除抗生素外，辅以抗氧化剂可减轻溃疡损害，加速溃疡修复。

关键词 角膜溃疡，角膜接触镜

中图法分类号 R772.21

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