

準分子雷射儀內部反射鏡水漬導致術後中央小島一病例報告

Central Islands Induced by BSS Remnants on Excimer Laser Mirror in Three LASIK Patients-A Case Series

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摘要

目的：報告三名因準分子雷射儀內部反射鏡面水漬導致近視雷射手術術中雷射光束部份陰斷引發中央小島(central islands)的病例。方法：病例報告。結果：於2004年4月7日是，我們在同一天內對三名病人執行了近視雷射手術，術後有連續三名患者有矯正不足(undercorrection)合併中央小島之併發症。手術醫師在手術將結束時發現顯微鏡中左眼的影像模糊。在手術之後，三名病例皆發現有中央小島之併發症。這三名病例皆於一個月後，接受一般加強(standard LASIK enhancement)手術，其中病例二跟病例三接受了前導波引導的加強手術(wave-front guided enhancement)。術後視力獲得改善，無續發之合併症產生。結論：中央小島是LASIK手術常見的併發症之一，而準分了雷射儀鏡面水漬可以是造成本篇三位病患中央小島的成因。避免中央小島發生的方式除了雷射切削各式的改進、及手術中角膜基質水份之控制、手術中用均衡鹽溶液(balance salt solution)沖洗角膜瓣時亦需避免將BSS濺到雷射儀反射鏡。病患二及病患三在接受前導波引導的加強手術後，病患對術後視力感到滿意，前導波引導的加強手術或許是對中央小島良好的解決方案。

Abstract

Purpose: To report 3 cases of central islands caused by partial laser beam block secondary to BSS remnants on the mirror of the excimer laser Methods: Cases series. Result: Central islands were noticed postoperatively in three consecutive cases, who received LASIK treatment secondary to myopia. On examination of the LASIK apparatus, BSS remnants were found on one of the reflex mirror, which was thought to lead to the refractive astray. To compensate for the under-correction, the left eye of case 1 received standard LASIK enhancement, and case 2 and case 3 received bilateral wave-front-guided enhancement.

After the enhancement, the results of case 2 and case 3 showed improvement in their topography and bare visual acuity. Conclusion: Central islands are common complications of LASIK. In this case series, the BSS remnants on the third mirror of the excimer laser might be the main cause of the central islands. The outcomes of our cases (case 2 and case 3) seemed satisfactory and it may indicate the wave-front guided enhancement is an alternative solution to the central islands.