

Surgical and pathologic observations of epididymal tubules during microscopic epididymal sperm aspiration for intracytoplasmic sperm injection.

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摘要

Abstract

Microscopic epididymal sperm aspiration (MESA) for sperm retrieval and intracytoplasmic sperm injection (ICSI) is currently our routine treatment for selected male patients with obstructive azoospermia. In order to refine the surgical technique and obtain better quality sperm for our assisted reproductive technology program, we observed the epididymal tubules in 40 sessions of surgical exploration of the epididymis for sperm aspiration. Epididymal tubules with long-term obstruction could be divided into three groups on the basis of clinical observations and pathology findings: markedly dilated, mildly dilated, and nondilated. All of the markedly dilated epididymal tubules (grade III, n = 10) were azoospermic and ICSI could not be done. Epididymal sperm obtained from the mildly dilated tubules (grade II, n = 9) resulted in poorer fertilization (49%) and pregnancy (33%) rates than sperm obtained from nondilated epididymal tubules (grade I, n = 21, fertilization rate 72%, pregnancy rate 57%). These findings demonstrate that nondilated epididymal tubules are best for sperm retrieval and successful ICSI. We believe this observation will be a good surgical parameter for urologic surgeons performing MESA.