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• 計畫英文名稱	Evaluation of Sperm Character from the Different Semen Sample of the Male Infertile Patients.
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• 英文關鍵字	Sperm；Male infertility；Semen
• 中文摘要	從最近的男性醫療科技進展可以得到兩種特殊的精蟲,包括在手術中取出的副睪丸精蟲和經直腸電流刺激射精取出的精蟲。這兩種精蟲和一般精蟲有何不同?必須做詳細的觀察以爲提高這些醫療成功率的重要參考。 本研究共分析了三十四個手術中取出的副睪丸精蟲樣本和二十七個電激取出精液的精蟲樣本,發現副睪丸精蟲的品質明顯地比正常控制組差(平均值精液濃度 7.5*10/sup 6/.plmin.12.0*10/sup 6//ml,活動力(20%.plmin.28%),而且經過 48 小時的培養,其平均活動指數也明顯低於正常控制組;52%有抗精蟲抗體的反應。在電激取出的精蟲評估上,我們發現 22 位脊椎損傷病人電激取出精液精蟲的濃度相當高(83*10/sup 6/.plmin.1103*10/sup 6/),但活動力卻很低(1.4%.plmin.12%),對五位遲滯性射精想生育的男人,電激取出精液在洗滌後精蟲活動力 0-25%,是造成人工生殖科技困難的原因。 初步的分析顯示這兩種精蟲品質和一般精蟲有很大的差異,必須做更進一步的研究來解答造成這種現象的原因機轉;而臨床運用上,更精密的取精術、精蟲洗滌術和試管內授孕技巧似乎是目前增加治療成功率的可行之道。
• 英文摘要	Two kinds of special sperm could be obtained in the recent advance for the management of male infertility-microsurgical epididymal sperm aspiration and transrectal electrostimulation to induce ejaculation. Any special characteristics of these sperm existed in comparison to other normal sperm? It needs sophisticated observation to enhance the clinical successful rate in the related fertilization therapy. In this study, we analyse 34 samples of epididymal sperm obtained in the microsurgical sperm aspiration as well as 27 samples of electroejaculated sperm collected from the procedure of rectal electrostimulation. The quality of epididymal

sperm was noted to be much poorer than that of the normal control (average density of sperm 7.5*10/sup 6/.plmin.12.0*10/sup 6//CC, average motility 20%.plmin.28%). After 48 hours incubation, the average motility index was remarkably lower than that of the normal control. In the examination of antisperm antibody, 52% of the epididymal sperm got the positive reaction. We also evaluate the electroejaculated sperm of 22 patients with spinal cord injury. It is very prominent that the sperm obtained by electrostimulation through the rectum is very dense in concentration (831*10/sup 6/.plmin.1103*10/sup 6//CC, however, very poor in motility (1.4%.plmin.12%). Another evaluation was done for 5 patients of retarded ejaculation with the problem of infertility, the sperm motility is extremely poor even after sperm washing (0-25%). Poor motility of the electroejaculated sperm might be the major cause of the low successful rate in the subsequent assisted reproductive technology procedure. The preliminary result of this study showed that there have a big difference of sperm characteristics among these have a big difference of sperm characteristics among these 2 special sperm and normal sperm. Further investigation is needed to answer the presently unknown mechanism & environment which might contribute to the poor quality for fertilization of these sperm. In clinical application, more delicate technique of sperm aspiration. Sperm washing as well as in vitro fertilization is now still mandatory for more success of pregnancy to use these special sperm.