體外震波治療儀中電極棒之聚焦壓力與熔蝕之探討

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摘 要

本實驗研究目的是藉由控制ESWT(Extracorporeal Shock Waves Therapy)電極擊發電壓大小，來探討震波產生時在ESWT 第二焦點聚焦附近所形成之高壓分佈情形，並探討高壓分佈對臨 床治療的影響，以及藉由控制電壓大小來探討電極棒的熔蝕現 象，並找出熔蝕後電極間距與高壓分佈的關聯性。我們將使用秀 傳醫院的體外震波治療儀，Ossa Tron OSA-140，分別以14KV、 18KV、22KV、26KV 之電壓放電、擊發，再由壓力計感應，以 示波器存取資料並傳送至電腦，分析震波產生時ESWT 在第二焦 點聚焦附近形成之高壓分佈情形，藉此了解ESWT 治療成效的物 理機制，並提高電極擊發效率，降低醫療成本，提升醫療品質。

關鍵詞 : 體外震波治療，震波聚焦，電極熔蝕。

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