Endoscopy-assisted Cubital Tunnel Release Under Carbon Dioxide Insufflation and Anterior Transposition
Su Jiang, Wendong Xu*, Yundong Shen, Jianguang Xu, Yudong Gu. *correspondence
Dept. Hand Surgery, Huashan Hospital, Fudan University, Shanghai, China

PURPOSE
• The optimal treatment for cubital tunnel syndrome is widely debated
• To describe the technique of an endoscopic-assisted ulnar nerve decompression using carbon dioxide insufflation in association with subcutaneous anterior transposition
• To assess the success or failure of the method of treatment

METHODS
• 8 males and 4 females average age of 42 years (range, 25-56) between August 2008 and June 2009
• Presented signs, symptoms, and abnormal neurophysiological studies of cubital tunnel syndrome were recruited in the retrospective study
• Operated on using a 0-degree lens STORZ endoscope
• Preoperatively classified according to the Dellon scale and postoperative Bishop rating system

RESULTS
• Preoperatively, 5 patients as mild, another 5 as moderate, and the remaining 2 as severe
• The average length of the incision 15 ± 3 mm, the mean length of the ulnar nerve decompression 18 ± 2 cm, the whole duration of surgery (skin to skin) 30 ± 5 minutes
• Endoscopic procedures in all patients with no difficulty
• All had improvement in symptoms of cubital tunnel syndrome and 10 of 12 patients scored excellent at a minimum of 1 year postoperatively

CONCLUSIONS
• Endoscopy-assisted cubital tunnel release under carbon dioxide insufflation demonstrated similar results compared with conventional open surgeries
• It may avoid problems such as long incision, painful scarring, and have additional advantages of providing an extended endoscopic view
• Safe and mini-invasive with favorable results in a 12-month follow-up