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Targeting estrogen receptor- $\beta$  has a therapeutic implication for the treatment of De Quervain's disease

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**D** e Quervain's disease, or stenosing tenosynovitis of the first dorsal compartment of the wrist, is a common ailment. How estrogen is involved in this disease is not clear. We previously showed that inflammation was involved in the pathogenesis of de Quervain's disease. In this study, the expression of estrogen receptor (ER)- $\beta$  is further examined to delineate the possible roles of estrogen in this disease. Postoperative retinaculum samples were collected from 16 patients with de Quervain's disease. The specimens were histologically graded by collagen structure. They were immunohistochemically evaluated by quantifying the expression of ER- $\beta$ , interleukin (IL)-1 $\beta$ , IL-6, cyclooxygenase (COX)-2, vascular endothelial growth factor (VEGF), and Von Willebrand's factor (vWF). De Quervain's disease occurs primarily in women. The female:male ratio in our study was 7:1. ER- $\beta$  was detected in the retinaculum and its expression increased with the grade of the disease and the age of the patient. Moreover, disease severity was related to the inflammatory cytokines IL-1 $\beta$  and IL-6, the inflammatory enzyme COX-2, and the angiogenic factors VEGF and vWF in the tenosynovial tissue. The severity of de Quervain's disease is associated with increased ER- $\beta$  expression, tissue inflammation, and angiogenesis. ER- $\beta$  might be a useful target for treating de Quervain's disease.

## **Biography**

Jeng-Long Hsieh completed her Master degree from Rutgers University in United States and PhD degree from National Cheng Kung University Medical College in Taiwan. She is a former Dean of College of Medicine and Life Science, Chung Hwa University of Medical Technology, and now a Professor in the Department of Nursing. Her research focus on two fields, cancer gene therapy and molecular factors in bone related diseases. She has published 20 papers in reputed journals and has been serving as a reviewer of repute.

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