## SYNOVIAL CYST: A NEW DISCOVERY OF CHIROPRACTIC FLEXION-DISTRACTION ADJUSTMENT BENEFIT

by James M Cox DC DACBR



Figure 1. Note the L3-4 left synovial cyst (see arrow)



Figure 2. The L3-4 synovial cyst is seen at the arrow. Also note the L4 degenerative spondylolisthesis of L4 on L5.



Figure 3. The arrow shows the pseudodisc herniation at L4-L5 which accompanies the degenerative spondylolisthesis of L4 on L5.

Once thought to be surgical cases, the work of Wilby below points out the new finding of a drainage channel from the ligamentum flavum to the facet joint. It is most probable that chiropractic flexion distraction spinal manipulation enhances drainage of the cyst and thus accounts for the success of the procedure in relieving the back and radicular pain of synovial cyst.

Martin J. Wilby, MA, MB, BChir, PhD, FRCS,\* Robert D. Fraser, AM, MD, FRACS,\* Barrie Vernon-Roberts, AO, MD, PhD, FRCPath, FRCPA,\*† and Robert J. Moore, MAppSc, PhD\*†. The Prevalence and Pathogenesis of Synovial Cysts Within the Ligamentum Flavum in Patients With Lumbar Spinal Stenosis and Radiculopathy Study Design. A clinicopathologic study of synovial cysts in the ligamentum flavum (LF) in patients with spinal stenosis. SPINE Volume 34, Number 23, pp 2518–2524

- The pathogenesis of lumbar juxtafacet cysts (synovial cysts) was studied in 27 consecutive patients with radiologically confirmed stenosis who underwent laminectomy.
- The 27 patients yielded 51 LF/FJ specimens containing 28 synovial cysts, 12 of which were unilateral and 8 were bilateral. Fragments of articular cartilage and bone were embedded in the walls of 89% of cysts and in the walls of a bursa-like channel originating from the medial aspect of the FJ capsule and extending into the LF.
- Communication with the FJ via this channel was observed in 21 (75%) of the 28 synovial cysts. Extending up to 12 mm in length, the channel was present in nearly all control spines at the L4–L5 level but in only about half at the T12–L1 level.
- Advanced osteoarthritis of the FJ causes the liberation of fragments of cartilage and bone into the synovial fluid of the joint space. This enables some fragments to escape from the joint into the channel and become lodged within its wall where they provoke granulation tissue and scar formation. The tissue response to articular debris may block the synovial lined channel to cause synovial cyst formation.

Respectfully submitted,
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