Resolution Of Symptomatic Lumbar Synovial Cyst After Traumatic Event

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Authors:
Nathan J Nordmann, MD
Alex P Michael, MD
Jose A Espinosa, MD
Disclosures: None
Introduction
Synovial cysts are most commonly found in the lumbar spine and are associated with low back pain and radiculopathy. Frequent use of imaging modalities has led to an increase in intraspinal synovial cyst identification. Treatment typically ranges from conservative measures to surgical decompression, but spontaneous resolution has previously been reported.
Methods
We present the first report of symptomatic lumbar synovial cyst resolution after a traumatic fall. The radiographic and clinical findings are then discussed with respect to the current literature on this topic.
Results
We present a case of a symptomatic synovial cyst between the fourth (L4) and fifth (L5) lumbar vertebrae identified on magnetic resonance imaging (MRI) (Figure 1). The patient presented with right paramedian back pain and right-sided L5 radiculopathy. She underwent unsuccessful trials of antiinflammatory agents and physical therapy.
Figure 1. T2-weighted imaging magnetic resonance imaging with sagittal (left) and axial (right) images that demonstrate a 7-mm synovial cyst (red square) at the fourth (L4) and fifth (L5) lumbar vertebral body levels with corresponding right L5 nerve root compression.
Results (continued)
Less than one year since initial diagnosis, the patient sustained a mechanic fall followed by resolution of prior symptoms. A subsequent lumbar MRI revealed complete resolution of the intraspinal synovial cyst (Figure 2).
Figure 2. T2-weighted imaging magnetic resonance imaging with sagittal (left) and axial (right) images that do not demonstrate any evidence of synovial cyst between the fourth (L4) and fifth (L5) lumbar vertebral body levels.
Discussion
In rare instances, synovial cysts may spontaneously regress or resolve secondary to other events (Table 1). This is the first description of resolution after a traumatic fall. Due to limited data on this topic, this report may provide additional insight into the pathophysiology of synovial cyst formation and resolution.

<table>
<thead>
<tr>
<th>Study</th>
<th>Age (years), Sex</th>
<th>Synovial Cyst Level</th>
<th>Symptomatic to Asymptomatic (months)</th>
<th>Start of Intervention to Asymptomatic (months)</th>
<th>MRI with Synovial Cyst to MRI without Synovial Cyst (months)</th>
<th>Conservative Therapies</th>
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NSAIDs, nonsteroidal antiinflammatory drugs.
*Not discussed.
Summary
● Synovial cysts are most commonly found in the lumbar spine and are associated with low back pain and radiculopathy
● For cases of refractory pain and/or neurologic deficits, surgical decompression is usually necessary
● Synovial cysts may spontaneously regress/resolve, but only a handful of cases have been described in the literature
● This report highlights the first case of synovial cyst resolution after a traumatic fall
● Due to limited data on this topic, this report may provide additional insight into the pathophysiology of synovial cyst formation and resolution