**Algorithm for morphologic classification**

**START**
- Failure of anterior/posterior tension band? **YES**
- Deformation of both endplates with/without posterior wall involvement? **NO**
- Deformation of one endplate? **YES**
  - Distinct posterior wall involvement? **NO**
  - Vertebral body edema? **NO**
- No injury

**OF 1**
- No deformation (vertebral body edema in MRI-STIR)
  - Typically not visible on x-rays: chance to find on MRI

**OF 2**
- Deformation of one endplate without or with only minor posterior wall involvement
  - With posterior wall < 1/5 involvement

**OF 3**
- Deformation of one endplate with distinct posterior wall involvement
  - With posterior wall > 1/5 involved

**OF 4**
- Deformation of both endplates with/without posterior wall involvement
  - Loss of vertebral frame structure
  - Vertebral body collapse
  - Pincer type fracture

**OF 5**
- Injuries with anterior or posterior tension band failure
  - Injuries with signs of distraction, rotation, or translation
  - Hyperextension with anterior tension band failure

**Modified score for therapeutic decision making in OF**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphology (OF 1-5)</td>
<td>1-5</td>
<td>2-10</td>
</tr>
<tr>
<td>Severity of Osteoporosis</td>
<td>T-Score &lt; -3 or qCT HU ≤ 100</td>
<td>1</td>
</tr>
<tr>
<td>Deformity Progression</td>
<td>Yes, No</td>
<td>1-4</td>
</tr>
<tr>
<td>Pain (under analgesia)**</td>
<td>VAS &gt; 5, ≤ 5</td>
<td>1-4</td>
</tr>
<tr>
<td>Neurological Symptoms (N2-N4)</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Mobilisation (under analgesia)</td>
<td>No, Yes</td>
<td>1-4</td>
</tr>
<tr>
<td>Health Status</td>
<td>ASA &gt; 3, ***mFI &gt; 2, Anticoagulation</td>
<td>Each -1, Maximum -2</td>
</tr>
</tbody>
</table>

- 0 points if a parameter is unknown or not determinable;
- 0-5 points = Conservative therapy;
- 6 points = Conservative therapy or surgery;
- > 6 points = Surgery.

* The severity score system has not been validated yet and should be used as a reference only.
** According to step II WHO pain ladder.
*** 5-item modified frailty index (mFI) = COPD, or recent pneumonia; Congestive heart failure; Functional status (not independent); Hypertension requiring medication; Diabetes mellitus.

Further information: [www.aospine.org/classification](http://www.aospine.org/classification)