Degenerative Disc Disease Terminology

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| Figure | Terminology |
|  | **Normal Disc:**  The intervertebral disc is considered as a two-dimensional round or oval structure with four 90 degree quadrants. |
|  | **Herniation:**  Localized displacement of disc material beyond the limits of the intervertebral space. (less than 50% or 180 degrees)  Disc material may be nucleus, cartilage, fragmented apophyseal bone, annular tissue, or any combination of these. |
|  | **Focal Herniation:**  Less than 25% of the disc circumference |
|  | **Broad Based Herniation:**  Between 25% to 50% of the disc circumference |
|  | **Protrusion** is present if the greatest distance, in any plane, between the edges of the disc material beyond the disc space is less than the distance between the edges of the base, in the same plane.  The base is defined as the cross-sectional area of disc material at the outer margin of the disc space of origin, where disc material displaced beyond the disc space is continuous with disc material within the disc space. In the cranio-caudal direction, the length of the base cannot exceed, by definition, the height of the intervertebral space. |
|  | **Extrusion** is present when, in at least one plane, any one distance between the edges of the disc material beyond the disc space is greater than the distance between the edges of the base, or when no continuity exists between the disc material beyond the disc space and that within the disc space. |
|  | Note: Because posteriorly displaced disc material is often constrained by the posterior longitudinal ligament, images may appear as a protrusion on axial sections, but extrusion on sagittal sections, in which case, it should be considered an extrusion.  A = Protrusion  B = Extrusion  C = Extrusion ( greatest cranio-caudal dimension greater than at its base at the level of the parent disc) |
|  | **Sequestration:**  Displaced disc material has lost completely any continuity with the parent disc. |
|  | **Migration:**  Any displacement of disc material away from the site of extrusion, regardless of whether sequestrated or not. |
|  | **Intraverteral Herniation:**  Herniation in the cranio-caudal direction through a break in the vertebral body endplate. |
|  | **Disc Bulge:** Not considered a form of herniation  Disc tissue circumferentially (50-100%) beyond the ring apophyses  “Bulging” is a descriptive term and not a diagnostic category. |
|  | **Asymmetrical Bulging Disc**  May be seen in severe scoliosis, is not considered a form of herniation. |
|  | **Annular Tear versus Herniated Disc**  Annular Tear: localized radial, concentric, or horizontal disruption of the annulus without associated displacement of disc material beyond the limits of the intervertebral disc space.  Nuclear material is shown in black, annulus in white.  Annular tear = annular fissure and does not imply traumatic etiology. |
|  | Coronal drawing of zones and levels.  The landmarks are:  Medial edge of the articular facets  Medial, lateral, upper, and lower borders of the pedicles  Coronal and sagittal planes at the center of the disc |
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