Developments in cage designs include cylindrical Bagby and Kuslich, cylindrical ray, cylindrical mesh, lumbar-tapered, polyethyl-etherketone cage and integral fixation cages. Biologic implants include bone dowels and femoral ring allografts. Methods for optimization of cage design have included cage dimensions, use of novel composite cage materials and integral fixation technologies. However, the historical development and evolution of cages used for ALIF has not been extensively documented [1)].

Both the Stabilis Stand Alone Cage and the BAK Cage provided satisfactory improvement in function and pain relief, despite less than expected radiographic fusion rates. The apparent incongruency between fusion rates and functional outcomes suggests that either radiographs underestimate the true incidence of fusion, or that patients are obtaining good pain relief and improved function despite a lower rate of fusion than previously reported. This was a Level III study [2)].

Stand-alone anterior interbody fusion cages with either tapered or cylindrical design are effective in restoring neuroforaminal height and stabilize the spine to withstand foraminal deformation during daily loading. The degree of stabilization was influenced substantially by the loading direction, to a lesser degree by the cage type, and was strongly dependent on the segment mobility. Although bovine lumbar spine is widely accepted for comparative studies, direct clinical interpretation should be made with caution owing to the anatomical differences from human [3)].

1)
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