

Percutaneous biportal endoscopic spine surgery

To determine the rate and anatomical location of [dural tears](#) associated with spinal surgery using a [percutaneous biportal technique](#) (PBES). Park et al. aimed to investigate the relationship between dural tears and the type of procedure and type of instrument used.

They retrospectively analyzed 643 PBES cases by reviewing medical charts, operative records, and operative videos. [Incidental durotomy](#) was identified in 29 cases. We analyzed the size and anatomical location of dural tears, as well as the surgical instrument that caused the tear, and the technique used to seal the tear.

The dural tear incidence was 4.5% (29/643 cases). Tears in the exiting nerve area (two cases, 6.9%) were mainly caused by curettage, while tears in the thecal sac area (18 cases, 62.1%) were associated with electric drill and forceps use, and use of a Kerrison punch in the traversing nerve area (nine cases, 31%). Twelve cases of dural tear were treated with in-hospital monitoring and bed rest. Fourteen cases were treated using a fibrin sealant. Two cases were treated with a non-penetrating titanium clip, and one was converted to microscopic surgery. One case of postoperative meningocele after conservative treatment required endoscopic revision surgery to close the dural tear.

Most cases of incidental dural tear during PBES were treated with an endoscopic procedure. The incidence of dural tear was no higher than that was associated with microscopic surgery. Our management strategy for incidental dural tears in biportal endoscopic spinal surgery is safe and effective ¹⁾.

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Park HJ, Kim SK, Lee SC, Kim W, Han S, Kang SS. Dural tears in percutaneous biportal endoscopic spine surgery: Anatomical location and management. World Neurosurg. 2020 Jan 17. pii: S1878-8750(20)30098-X. doi: 10.1016/j.wneu.2020.01.080. [Epub ahead of print] PubMed PMID: 31958589.

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