Transoral odontoidectomy

The transoral transpharyngeal approach is the standard approach for transoral odontoidectomy and decompress the cervicomedullary spinal cord. There are some significant risks associated with this approach, however, including infection, CSF leak, prolonged intubation or tracheostomy, need for nasogastric tube feeding, extended hospitalization, and possible effects of phonation. Other ventral approaches, such as transmandibular and circumglossal, endoscopic transcervical, and endoscopic transnasal, are also viable alternatives but are technically challenging or may still traverse the nasopharyngeal cavity. Far-lateral and posterior extradural approaches to the craniocervical junction require extensive soft-tissue dissection. Recently, a posterior transdural approach was used to resect retro-odontoid cysts in 3 adult patients. The authors present the case of a 12-year-old girl with Down syndrome and significant spinal cord compression due to basilar invagination and a retro-flexed odontoid process. A posterior transdural odontoidectomy prior to occiptocervical fusion was performed. At 12 months after surgery, the authors report satisfactory clinical and radiographic outcomes with this approach [1)].

Endoscopic transnasal transclival resection of the odontoid process is less invasive than the standard transoral odontoidectomy.

see Endoscopic Endonasal Odontoidectomy.

1)
Archer J, Thatikunta M, Jea A. Posterior transdural approach for odontoidectomy in a child: case report. J Neurosurg Pediatr. 2019 Oct 11:1-5. doi: 10.3171/2019.7.PEDS19337. [Epub ahead of print] PubMed PMID: 31604321.