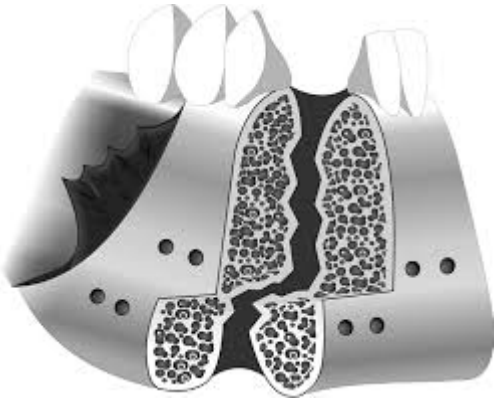

Kondoh et al., presented three cases of foramen magnum meningioma. The first involved a ventral type tumor extending to the second cervical body. Following bilateral mandibulotomy, surgery was performed via the anterior transoral approach and the tumor was totally removed. Nine days postoperatively, she developed meningitis, which was successfully treated with antibiotics. The second patient's tumor was dorsal type and was deeply embedded in the lateral part of the vermis. The tumor was totally removed via the midline suboccipital approach and she recovered uneventfully, with only slight upper-extremity paresthesia. In the third case, the tumor was ventral type and situated mainly in the clivus. Craniotomy was performed by the bilateral suboccipital approach and extended nearly to the jugular tubercle. The tumor, which severely displaced the lower cranial and upper cervical nerves, was totally removed. The postoperative course was lengthy and complicated. Artificial ventilation was required for 2 months, and difficulty in swallowing persisted during long-term follow-up. As illustrated by the second case, dorsal and lateral type foramen magnum meningiomas can usually be removed via the lateral suboccipital approach. In the case of ventral type tumors, the anterior transoral approach entails the risk of infection, as occurred in the first case. They conclude that the lateral suboccipital approach is preferable; craniotomy extending to the jugular tubercle lowers the risk of brainstem damage [1)].

1)
Kondoh T, Tamaki N, Taomoto K, Yasuda M, Matsumoto S. Surgical approaches to foramen magnum meningioma–report of three cases. Neurol Med Chir (Tokyo). 1990 Mar;30(3):163-8. PubMed PMID: 1697042.