ABSTRACT

Objectives: Indications for expanded endoscopic approaches continue to grow, resulting in larger and more complex skull base defects. Reconstructive developments, however, have lagged our extirpative capabilities. As the complexity of clinical scenarios escalate, challenging our current reconstructive strategies, we are compelled to develop alternative techniques. In this article we demonstrate the anatomical basis for a new posterior pedicled lateral wall flap (Carrau-Hadad or C-H flap) for the reconstruction of median skull base defects, and present our early clinical experience.


Methods: Using a cadaveric model we designed a posterior pedicle flap comprising the nasal inferolateral wall mucoperiosteum. We applied this information clinically, to reconstruct transmural skull base defects.

Results: In our cadaveric model, we harvested and transposed C-H flaps into various defects of the planum sphenoidale, sella turcica, clivus and nasopharynx. Then, we used the C-H flap in four patients, successfully reconstructing their clival (n=3) and sellar (n=1) surgical defects. All patients healed uneventfully.

Conclusions: Our anatomical study and early clinical experience support the use of the posterior pedicle lateral nasal wall flap to reconstruct large cranial base defects in properly selected patients.

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