

# The surgery of craniopharyngiomas

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For surgeons who regularly operate on tumours in and around the pituitary fossa, craniopharyngiomas will make up a small yet significant proportion of their series. There can be no doubt that these tumours are usually the most challenging of fossa-origin tumours, being both more technically demanding and also having a less predictable outcome, with a higher recurrence rate and more complications associated with the surgery. Big surgical series are usually far smaller than those of the pituitary adenomas, which experienced surgeons will have operated on many more times. Few surgical groups will see more than a handful of patients every year.

Although radical surgery results in lower recurrence rates, even in the ‘total excision’ section of any big series, the recurrence rate is significant, although admittedly smaller than the less radical groups. It is also clear that radiation therapy has the best chance of reducing this recurrence rate, something that many surgical series tend to overlook [4].

There is also the biphasic age group of presentation, and there are clear differences in approach between paediatric neurosurgeons and pituitary neurosurgical specialists. The paediatric patients present with bigger tumours in a more acute fashion and often have significant and devastating hypothalamic problems related to their therapy. As a consequence, most paediatric neurosurgeons have abandoned the aggressive approach advocated by Hoffman [2]

for a much more cautious one, as is demonstrated in the guidelines for management from the Great Ormond Street Children's Hospital neurosurgical group in London [6], which has the highest throughput of these paediatric cases in the UK.

Over the last three decades, many the masters of cranial microscope surgery have presented their methods for approaching craniopharyngiomas, usually concentrating on completeness of resection. Emphasis has shifted from the transsylvian approaches advocated by Yasargil [7] and by Symon [5], as the access can be fraught in the presence of a prefixed chiasm, a not infrequent event in these tumours, through translamina terminalis approaches to the current major discussion topic, the ‘extended transsphenoidal approach’, originally proposed by Weiss and Couldwell [1] and almost contemporaneously by Laws.

Moving from the microscope to the endoscope has done much to improve both the efficacy and safety of this procedure, and the results from Laws' group [3] are impressive.

In this volume, however, is presented a different approach from a Chinese group from Guangdong whose series is impressive in its range, detail and structure. Nearly 200 craniopharyngiomas in a 13-year period is a huge experience. Furthermore, the authors have separated their craniopharyngiomas into position and have sufficient in even the most rare group, the 17 purely intraventricular types as presented in one of their papers, that they can justify how they make their surgery. Their results are excellent, and they have justified this by studying anatomic material from fetal studies.

In effect, these papers highlight the sense in surgeons tailoring their approach to the differing challenges and not just use a single approach, but keep in their armamentarium all the options, from radical transcranial approaches,

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through the extended skull base ones, to the more cautious craniopharyngioma cyst catheter placement. Perhaps too, it is time to revisit some of the intracyst treatments, largely now abandoned.

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