

Introduction

Pediatric TN represents <1.5% of all cases. There are only 3 small case series reported in the literature. Two of the 3 report poor results when patients with TN onset prior to age 21 are operated upon many years later as adults. A third with only 5 patients operated upon before age 18 suggests that better results may be possible.

Methods

Prospective outcomes analysis of 35 consecutive patients with TN onset prior to age 21 included 26 patients operated upon before age 21 over a 10.5 year period who underwent 37 MVD’s (11 bilateral TN; 7 re-do MVD after failed MVD elsewhere). 25 MVD’s in 20 patients had a minimum follow up of one year (Range 1 – 11y; Median, 2.5y).

Results

Pediatric TN differs from adult TN. 11/26 (42%) patients had bilateral TN, and 12/26 (46%) had multiple cranial nerve compression syndromes. Complex vascular pathology, multiple blood vessel compression and dominantly venous compression were all more common in pediatric patients than their adult counterparts. 18/25 cases (72%) were initially pain free (PF) after MVD with only 3 recurrences (12%) with 15/25 cases (60%) PF at last follow up. 21/25 (84%) were >75% improved at last follow up. and 22/25 (88%) were >50% improved at last follow up. Only 2/25 (8%) initially had <50% pain improvement, and only 3/25 (12%) had <50% pain improvement at last follow-up.

Conclusions

Largest series of pediatric TN cases ever prospectively studied and reported. While it confirms that pediatric TN differs from adult TN in several respects, it suggests that the poor results previously reported for MVD in this setting most likely relate to significant duration of symptoms and progression of pathology prior to attempting MVD. Early MVD in the setting of pediatric TN has the potential for excellent results, only slightly lower than those achievable in adults.

Learning Objectives

1. Understand the differences between pediatric TN and adult TN 2. Recognize the importance of early diagnosis and surgical intervention for patients with pediatric TN

References

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