A Multi-centre Retrospective Study of 408 Retroperitoneal, Abdominal and Pelvic Schwannomas: An interim report on future recommendations for management and surveillance

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Introduction

Schwannomas are rare benign nerve sheath tumours, typically composed of well-differentiated Schwann cells. Retroperitoneal, Abdominal, retroperitoneal and pelvic schwannomas pose a significant management conundrum given the potential morbidity that can be involved with resection. There is marked variability in surgical practice, with some institutions adopting a default resectional policy and others preferring to monitor with intervention only if symptomatic, anatomically compromising or demonstrating concerning behaviour. The volume of cases presenting to individual specialist centres is unlikely to yield sufficient numbers of cases to validate management policy and guide patients in decision making. Further to this, it is unclear if post-operative radiological surveillance is of any benefit and may represent a waste of resource

Aim

Creation of a collaborative project to better exploit combined clinical, radiological and histopathological parameters to determine if:

a) Schwannomas of low clinical risk can be simply followed with observation

b) Schwannomas of higher clinical risk and/or patient factors should undergo resection

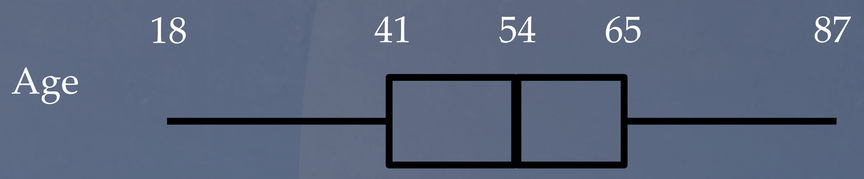
c) There is a role in radiological surveillance post resection.

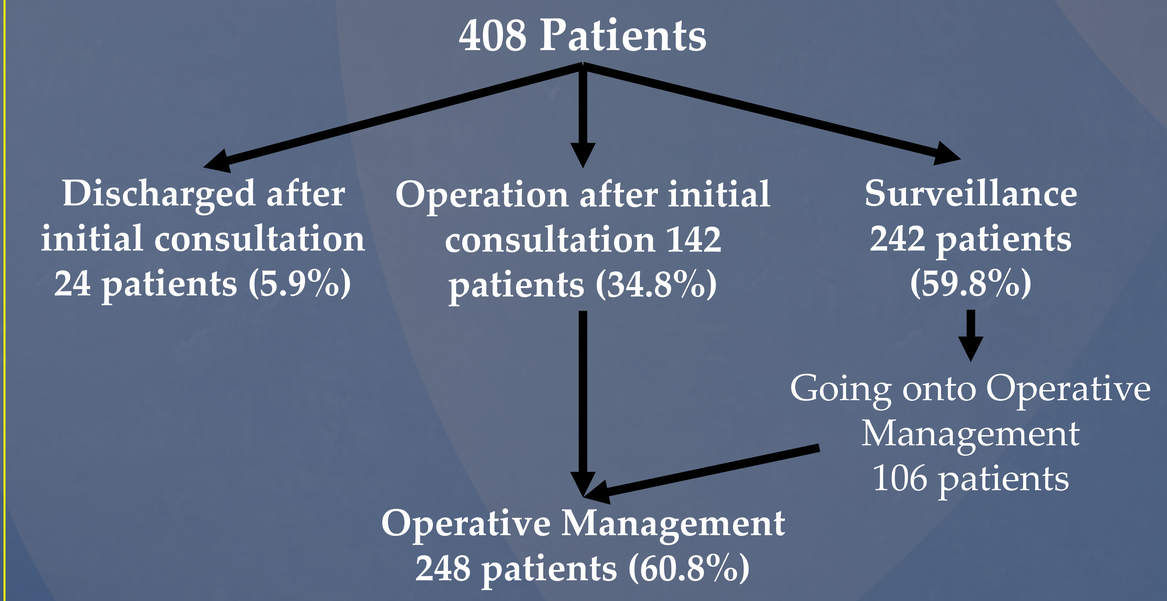
Inclusion Criteria

All consecutive patients presenting with an abdominal, retroperitoneal or pelvic schwannoma between 2000 and 2016 inclusive

Results from 8 centres

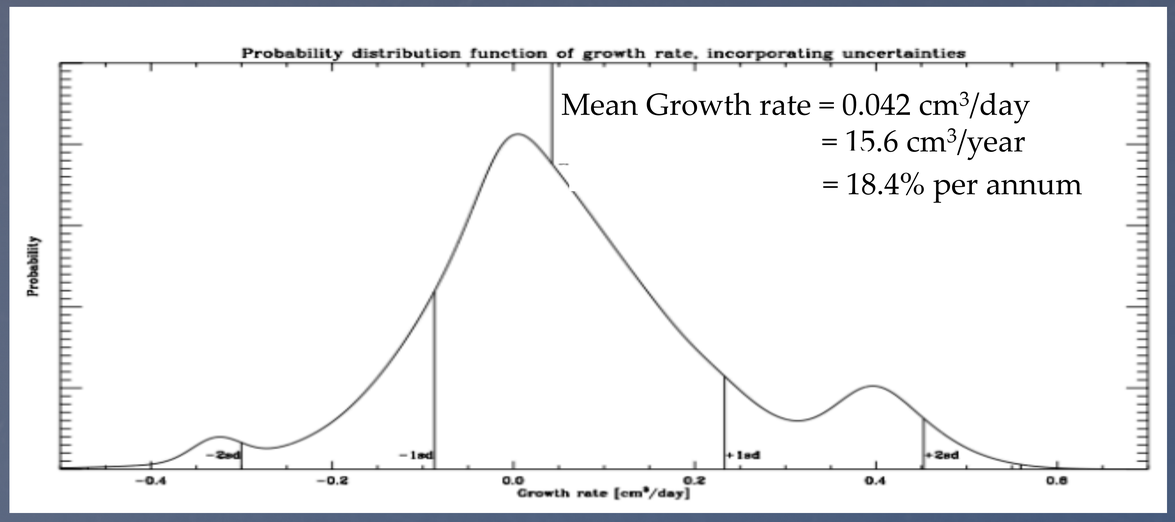
408 Patients Female 230 (56.4%) Male 178 (43.4%)





After 2 rounds of surveillance only 18 patients out of 143 (12.6%) go onto operative management, with 6 out of 101 (6.0%) after 3rd round

Results Growth



Results Resection

- No malignant transformations
- 217 had R0/1 resections
  - 114 no further follow up
  - 98 no recurrence after first scan
  - 5 recurrence/residual disease
  - 1 patient demonstrated recurrence on 5th scan (1727 days post resection), growing at 16.3% per annum
- 22 had R2 resections, with 19 going onto post operative monitoring
  - 13 demonstrated residual disease with growth of 6.74% per annum (n=4)

Conclusions

1) Schwannomas grow linearly at 18.4% per annum, with a few exceptions growing faster > 50% per annum. 2) Prolonged surveillance post 3rd/4th scan) just confirms ongoing growth. 3) Post operative scanning has a low pick up for recurrence/residual disease in R0/1 resections

Tentative Recommendations

1) If symptomatic – offer resection. 2) If not symptomatic – for repeat scan in 1 year. 3a) If small and no rapid growth on repeat scan – repeat scan in 1 year. If there is still no change in growth rate, then able to discharge. 3b) If large and likely to become symptomatic – surveillance/operative management. 4) No post operative scans for R0/R1 resections