MS-06. DEFINING THE OPTIMAL FOLLOW-UP SCHEDULE FOLLOWING SURGICAL RESECTION OF GRADE I MENINGIOMA
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BACKGROUND: Extent resection is the standard practice for predicting recurrence/progression in meningioma. A number of studies have questioned the use of the Simpson grading system in modern neurosurgery. The aim remains to obtain an accurate prediction of recurrence risk so that a safe follow up/imaging schedule can be implemented. METHODS: Retrospective study of all resected WHO grade 1 meningioma at the Walton Centre NHS Foundation Trust from 2002 - 2007. Anatomical location, Simpson clearance, outpatient and imaging follow up and recurrence/progression time and actions were recorded. Descriptive statistics and Kaplan-Meier curves were plotted to calculate recurrence/progression free time by anatomic location, Simpson grading, gross total resection (GTR = Simpson 1-3) and subtotal resection (STR = Simpson 4-5). RESULTS: 145 records were included (74.5% females). Tumour location was: parasagittal/parafalcine 24.1%; convexity 22.8%; and skull base 53.1%. Simpson resection was grade 1: 21.4%; grade 2: 42.8%; and grade 4: 35.2%. GTR was 64.1% and STR 35.9%. Median follow up was 60 months. Median number of follow-up MRI and clinic appointments was 5. Recurrence/progression occurred in 11.7%, 3 convexity with median recurrence/progression time 68.3 months, 2 parasagittal/parafalcine, median time of 24 months and 12 skull base with a median time of 53.3 months. PFS was 96.8% for Simpson 1, 100% for Simpson 2 and 82.4% for Simpson 4. PFS for GTR was 98.9% and for STR was 82.7% (p = 0.005). CONCLUSIONS: Extent of resection (GTR or STR) determines risk of recurrence. For convexity and parasagittal meningioma with GTR, follow-up MRI is sufficient for years 1, 2 and 5. Skull base tumours and STR in any location should have annual MRI.