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LONG TERM FOLLOW UP OF INTRADURAL SPINAL TUMOURS

Introduction/ Aim

Intradural tumours are rare and constitute 2-4% of all CNS tumours. They present with a variety of complaints. Surgery and radiotherapy are the main modalities of treatment. We investigated how successful this has been over an 18 year period at a single institution.

Materials and Methods

We analysed the outcomes of 216 intradural tumours managed between 1994 and 2012. This included length of follow up, Frankel grade, recurrence, radiotherapy, and death. Clinical data was collected retrospectively from case notes, and survival data from the NHS national demographics batch service. Cases were categorised by intramedullary or extramedullary location for statistical analysis with IBM SPSS.

Results

Tumours were categorised by intramedullary (31%) or extramedullary location (69%). The most frequent subtypes were meningioma (32%) schwannoma (22%) and ependymoma (21%). Patients commonly presented with pain (51%) and weakness/incoordination (45%). The average time between symptom onset and surgery was 28 months. Mean age at surgery was lower for intramedullary tumours compared to extramedullary tumours (45 years compared to 54). Pre and post-operative Frankel scores were stable or improved in 87% of intramedullary tumours and 96% of extramedullary tumours ($p = 0.012$). Post-procedural complication rates were equivalent ($p = 0.121$). Mean follow up was 10 years. Intramedullary tumours were more likely to recur ($p = 0.000$) and receive adjuvant radiotherapy ($p = 0.000$). Overall survival was comparable with 80.6% for intramedullary and 79.9% for extramedullary ($p = 0.901$). Time from surgery to death was shorter for intramedullary cases ($p < 0.027$) and age at death was younger ($p < 0.002$).

Conclusion

Our results show that the majority extramedullary and intramedullary tumours remained stable or improved their Frankel grade post-operatively. A favourable post-operative Frankel score correlates with a good pre-operative Frankel score. We advocate a posterior laminectomy approach when operating on this pathology.