



## C0387 - INTRAOPERATIVE 'FROZEN SECTIONS' OF SPINAL CORD TUMOURS - ACCURACY AND IMPLICATIONS

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### Resumen

**Objectives:** We investigated the accuracy of intraoperative frozen sections of the spinal cord, with the additional aim of examining the outcome when initial results were discordant with the final diagnosis. The principle concern was for those tumours where incorrect diagnosis could lead to over/under aggressive resection (e.g. astrocytoma vs ependymoma) and thus sub-optimal outcomes.

**Methods:** Retrospective review of 292 spinal cord tumours operated in our institution between 2006-2015. Histological, radiological and clinical notes were reviewed.

**Results:** 134/292 tumours had a result for intraoperative smear histology. In 9 of 134 cases, the smear report was discordant with the final result, and in 11 cases the examining pathologist was unable to make a firm diagnosis. No patients underwent revision surgery as a result of this. One patient with an ependymoma initially identified as an astrocytoma underwent a subtotal resection with a stable small residuum. The operative findings suggested the tumour was densely adherent medially with no obvious plane.

**Conclusions:** In the key cases where typically encapsulated tumours were misidentified as diffuse tumours, or vice versa, we identified a single case where a more accurate smear may have affected the intraoperative decision making, though a retrospective review of the operative notes suggests the appropriate action was taken for the anatomy of this particular tumour. The small residuum has been tracked and remained static over the years. With appropriate neuropathological support, intraoperative smears are generally accurate at identifying tumours. Taken as a part of the gestalt impression of the tumour, they have been a useful adjunct in oncological surgical decision making.