

A Rare Case Of Pediatric Meningioma

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Abstract

INTRODUCTION: Meningiomas are arachnoid cell-originating tumours which rarely present in the paediatric population. Characteristic symptoms include focal or generalised seizures, although many patients are asymptomatic. These tumours are commonly seen in patients suffering from neurofibromatosis type 2, and almost half of patients presenting with meningiomas have allele losses in the DAL-1 and NF2 genes.

OBJECTIVES: To elucidate the demographic and autopsy findings of fatal cases involving NPS in Southern Ireland as compared to deaths involving traditional drugs of abuse (TDOA).

METHODS: Post-mortem reports from the Cork-Kerry region with positive toxicology for illicit substances between 2012-2016 were retrospectively analyzed to compare NPS and TDOA cases with respect to circumstances surrounding death, toxicological results, and pathological findings.

RESULTS: Between 2012-2016, there were 164 cases involving illicit substances in the Cork-Kerry region. NPS accounted for 17 (10.4%) cases, with an average annual mortality rate of 34.8 per 100,000 population. NPS contributed to the cause of death in 70.6% of cases where detected, compared to 43.5% for TDOA only. In both cohorts, fatal abusers were predominantly young males. Importantly, cases involving NPS showed a higher proportion of mono-drug intoxication and presentation to hospital prior to death. Autopsy findings were non-specific but commonly featured pulmonary congestion, aspiration, and cerebral oedema.

CONCLUSION: NPS are detected in a small proportion of medicolegal autopsies but contribute significantly to acute intoxication deaths. This study highlights the need for effective drug monitoring and enforcement strategies, along with improved management of drug toxicities presenting to hospital.

KEYWORDS: Meningioma, paediatric brain tumour, paediatric meningioma, complete resection, staged cranial reconstruction.

