We stratified patients by BMI greater than or less than 25. Results: A total of 45 patients were included. Recurrence was observed in 15 patients (33.3%). There were 32 (71.1%) patients with BMI > 25, and 13 (28.9%) patients with normal BMI. Patients with elevated BMI had higher risk of recurrence (p=0.04). Multivariate analysis identified BMI as an independent predictor of recurrence. Conclusions: Our results suggest that overweight patients with a Grade 2 or Grade 3 meningioma are at higher risk of recurrence than patients with normal BMI. The explanation for this association unknown. Further research is suggested to confirm and better characterize this association.

P.094

Incidence of pathologically confirmed primary malignant brain tumours in Newfoundland and Labrador: an eight-year review spanning 2015-2022

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Background: Considering regional and temporal trends, we sought to explore the incidence of primary malignant brain tumours in Newfoundland and Labrador. Methods: We reviewed all primary, malignant brain tumour cases from 2015-2022 confirmed by St. John's Health Sciences Centre pathology reports. Incidence rates were standardized using the 2011 Canadian standard population. Results: We included 362 cases. The average annual age-standardized incidence rate of primary, malignant brain tumours per 100,000 was 7.0 (95% CI: 6.3-7.7), lower than the national average (7.93; 95% CI: 7.78-8.08). The incidence of glioblastoma (5.1; 95% CI: 4.5-5.7) was significantly higher than the national average (4.05; 95% CI: 3.95-4.16). Temporal trends revealed that oligodendroglioma incidence spiked from 0.5 (95% CI: 0.2-0.7) in 2015-2019 to 1.5 (95% CI: 0.4-2.6) in 2020 before returning to baseline in 2022. Regional trends indicated a lower incidence of malignant tumours in Labrador-Grenfell (5.1; 95% CI: 2.5-7.6), compared to 6.9 (95% CI: 6.2-7.6) averaged elsewhere. Conclusions: Higher rates of glioblastoma in Newfoundland and Labrador could have a genetic or multi-factorial cause. The increased occurrence of oligodendroglioma during the COVID-19 pandemic necessitates broader investigation, potentially linked to delays in patient care during this period. Regional trends could suggest less access to care in rural populations and underestimated incidence.

P.095

Role of selective neck dissections in the management of carotid body tumours

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Background: Carotid body tumours (CBT) are rare neoplasms of the paraganglia at the carotid bifurcation. Histopathologic analysis alone is insufficient to confirm malignancy, requiring metastases to non-neuroendocrine tissue including cervical lymph nodes for definitive diagnosis. The role of selective neck dissection (SND) during CBT surgeries in detecting malignancy and guiding subsequent management remains uncertain. Methods: A retrospective case series was performed on all patients undergoing CBT surgeries with SND between 2002 and 2022. Data collection included demographics, genetic and laboratory testing, imaging, intra- and post-operative complications, follow-up and histopathology. Results: Twenty-one patients underwent CBT resection with SND. Of these, 3 had carotid artery injuries, and 5 had nerve injuries. One patient experienced peri-operative embolic strokes, presumed related to tumour embolization. Three patients were found to have lymph node involvement, confirming malignancy. Malignancy was significantly associated with the risk of carotid injury (p = 0.04.) Conclusions: SND is a useful adjunct in detecting malignancy during CBT resection. The incidence of malignancy in CBT is low but not negligible and SND should be considered in patients with suspected malignancy or high-risk factors. This study's 14% incidence of malignancy suggests there may be a rationale for considering universal implementation of SND during CBT resection.

P.096

Hearing preservation and quality of life outcomes in partial labyrinthectomy petrous apicectomy for microsurgical resection of large posterior fossa skullbase tumors

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Background: The Partial Labyrinthectomy Petrous Apicectomy (PLPA) aims to give transpetrosal access whilst preserving hearing for challenging tumors such as petroclival meningioma. There are few studies assessing resection and morbidity and no large studies that document hearing preservation and quality of life (QOL). We present the first large series to do so. Methods: A retrospective review was performed of all PLPA cases between 2005 and 2023 at a tertiary center. Demographics, tumor characteristics, neuromonitoring, hearing and surgical outcomes were collected. QOL was measured with the 36-item short form survey (SF-36). Results: Of 73 PLPAs, data for 56 patients undergoing 57 surgeries was obtained. Petroclival meningioma (57.8%) and epidermoid tumors (21.0%) were common indications . The mean patient age and tumor size were 51.6 years and 44mm. Gross total resection was achieved in 40.3%, near total in 15.8% and subtotal in 43.8% of cases with no perioperative mortality and was not influenced by attempted hearing preservation (p=0.183). Of 39 hearing preservation cases, 27 (69.2%) were preserved, 10 (25.6%) were lost and 2 had unclear outcomes. Conclusions: Improved microsurgery and neuromonitoring during PLPA leads to decreased mortality and morbidity compared to historical cohorts while achieving a high rate of resection, hearing preservation and maintained QOL.