Craniopharyngioma Outcomes And Associations As A Function Of Patient Age

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Poster #2429
Disclosures

• The authors have no relevant disclosures or conflicts of interests.
• No sources of funding were used to conduct this study.
Introduction

• Craniopharyngiomas demonstrate a bimodal age distribution within the patient population, with the majority of cases occurring either early in life or in older adults.

• Here, we compare the complications and outcomes associated with pediatric and adult craniopharyngiomas.
Methods

- We defined the study age distribution as children between 0-18 years and adults over the age of 18. Using the 2016 National Inpatient Sample (NIS) database, we conducted a retrospective cohort analysis of 68 pediatric and 251 adult patients who were diagnosed with a craniopharyngioma (n=319).

- Statistics were conducted using R. Welch two-sample t-test was used to compare variables between groups. Unpaired two-sample Wilcoxon testing was conducted to ensure that there were no differences in geographic location and sex between the two groups.
Results

• The rate of hospital acquired meningitis was significantly different between the groups, occurring more often in adult patients (p= 0.0453).

• Sepsis occurred significantly more often in adult craniopharyngioma patients (3.19%), with no pediatric cases resulting in sepsis (0%) (p=0.00447).
Results

• Findings of diabetes insipidus (DI) were significant between the two groups, affecting 54.4% of pediatric patients and 39.8% of adult patients (p=0.0352).

• Patient disposition at the time of discharge varied widely, with 88.2% of pediatric patients and 55.4% of adults receiving routine discharge.

• In place of a routine discharge, a significant number of adults were sent to either a nursing, intermediate, or home care facility (p<0.01).
Discussion

• Pediatric craniopharyngioma cases received microscopic resection more frequently and showed an increased association with DI.
• Adult craniopharyngioma cases demonstrate increased rates of sepsis and result in complicated hospital discharges.
• Further investigation is necessary to elucidate the factors influencing the different outcomes seen in pediatric and adult craniopharyngioma cases.
Outcomes following resection of a craniopharyngioma may differ between adult and pediatric populations.

Adults receiving resection of a craniopharyngioma are less likely to have a routine hospital discharge compared to pediatric populations.

Key Points