Paediatrics Physical Poster Presentation

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PREVALENCE AND RISK FACTORS OF ENDOCRINE DISORDER IN CHILDHOOD BRAIN TUMOR SURVIVORS: A SINGLE-CENTRE STUDY

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INTRODUCTION

Brain tumours are the most common type of paediatric solid organ tumors and the second most common childhood malignancy after leukaemia, in which it contributes to 21% of all paediatric malignancies. The survival outcomes in childhood brain tumours have improved significantly due to the advances in diagnosis and treatment, as well as the understanding of the disease aetiology. With improved survival rate, there has been a rising concern regarding the sequelae of childhood brain tumour survivors. We aimed to study the prevalence and risk factors of endocrine disorder in childhood brain tumour survivors.

METHODOLOGY

This study took place at Hospital USM and recruited 124 childhood brain tumour survivors from January 2002 till December 2017. We included brain tumour survivors aged 18 years or younger with either stable disease or in remission and survived for at least 2 years after diagnosis. Data collected included demographic data (age at diagnosis, gender, ethnicity, socioeconomic status), clinical clues for endocrine disorders, anthropometrics (weight, height, mid-parental height), pubertal stage according to Tanner staging, tumour-related characteristics, treatment modalities and endocrine laboratory measurements at diagnosis and during follow up. Logistic regression was applied to evaluate risk factors of endocrine disorders in childhood brain tumour survivors.

RESULT

The prevalence of endocrine disorders in childhood brain tumour survivors was 62.1%. The risk factors were high BMI [adjusted odds ratio (AOR) 1.29, 95% Confidence interval (CI): 1.12 to 1.5], high risk site [AOR 7.15, 95% CI: 1.41 to 36.3] and chemotherapy [AOR 0.18, 95% CI: 0.05 to 0.62].

CONCLUSION

The prevalence of endocrine disorders in childhood brain tumour survivors in our centre was 62.1%. The significant risk factors were high BMI, tumour location (suprasellar and intrasellar) and chemotherapy.

KEYWORDS

endocrine disorder, childhood brain tumour survivors, risk factors