Paediatrics Oral Presentation

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TRENDS OF CENTRAL PRECOCIOUS PUBERTY AMONG CHILDREN FROM 2004 TO 2024

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INTRODUCTION
Temporal trends worldwide demonstrate evidence of an earlier onset and progression of puberty. This study aims to describe the trends in precocious puberty among children in Hospital Putrajaya between 2004 to 2024.

METHODOLOGY
Data retrieved from the electronic database were reviewed. All patients diagnosed to have precocious puberty (i.e., onset of puberty before age 8 years for girls and 9 years for boys) in the Department of Paediatric Endocrinology from January 2004 until April 2024 were included. These patients were stratified according to the diagnosis of idiopathic central precocious puberty (CPP) and normal variant puberty [i.e., premature thelarche (PT) or premature adrenarche (PA)].

RESULT
A total of 89 children were registered with a diagnosis of CPP, PT and PA. They were predominantly girls (96.6%), with median (interquartile) age at diagnosis of 7 years (6;10) for boys and 7 years (2;9) for girls. Majority were Malay (60.7%), followed by Chinese (28.1%), Indian (9%) and Nigerian (2.2%). Majority of the cases were idiopathic CPP (91%), with a median (interquartile) LH:FSH ratio of 1.4 (0.16;7.23). The MRI findings were a mix of normal (35.3%), pituitary microadenoma (34.1%) and pineal gland cyst (1.12%). There was a general increase in the number of cases of CPP over time, from 25.8% between 2013 to 2018, to 68.5% between 2019 to 2024. Nearly half of the cohort had a body mass index (BMI) of overweight and obese (41.3%), with median (interquartile) bone age of 4 years (2;7).

CONCLUSION
This study demonstrated an increase in the number of patients with central precocious puberty over time. We also demonstrated a possible association with increased BMI and earlier onset of puberty in girls.