**P–29 Identifying adolescents with Turner Syndrome at risk of poor cardiovascular outcomes: a pilot study**

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**Introduction:**

Hypertension can develop at a young age in Turner Syndrome (TS), and International Guidelines recommend that blood pressure (BP) is measured at every clinic visit during childhood.(1) 24-hour ambulatory BP monitoring (ABPM) is perceived as being poorly tolerated in paediatric patients, but has diagnostic benefits. Its usability and accuracy in TS are scarcely established. We compared information gathered from clinic BP with ABPM.

**Methods:**

Adolescents with genetically confirmed TS undertook both clinic BP measurement and ABPM (Welch Allyn®, USA). The

study has ethics approval (REC 21/SC/0292) and parents/patients gave informed consent/assent. Non-dipping BP was defined as <10% nocturnal fall in systolic and/or diastolic BP from daytime values. Hypertension was defined as systolic and/or diastolic BP ≥ 95th centile for height, age and gender.(2) Acceptability of ABPM was assessed using a 10-point Likert score (1 unacceptable, 10 acceptable).

**Results:**

Initial data were collected from six girls (mean age±SD 15.0 ± 1.5 years). Successful ABPM readings were obtained from

81 ± 12% measurements. Clinic BP identified hypertension in one participant and one further participant was diagnosed with hypertension based on ABPM. Non-dipping BP was observed in 5 of 6 participants: 3 had systolic non-dippings (median 8.7%, IQR 6.6%–11.5%), 4 had diastolic non-dippings (median 8.5%, IQR 7.7%–12.4%). Mean arterial BP nocturnal dipping was <10% in the same 5 participants (median 6.2%, IQR 5.8%–9.0%). Average acceptability score for ABPM was 6.6 ± 1.2 for the daytime and 6.2 ± 2.2 for the night-time.

**Conclusions:**

Clinic BP may not accurately assess for the true cardiovascular risk of adolescents with TS. ABPM was rated as an

acceptable investigation by patients and improves hypertension detection in TS.

Disclosures: None

References:

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