FACULTY OF MEDICINE AND HEALTH SCIENCES

CIRCADIAN RHYTHM OF WATER DIURESIS AND SALT EXCRETION IN TREATMENT NAÏVE CHILDREN WITH NOCTURNAL POLYURIA AND THE INFLUENCE ON DESMOPRESSIN RESPONSE

(SECONDARY ANALYSIS OF THE SLEEP STUDY)

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MATERIAL AND METHODS

- Post-hoc analysis of the SLEEP study (Van Herzeele et al 2016)
- 30 children
- MNE: > 5/7 wet nights
- Nocturnal polyuria (>100% of EBC for age)

Baseline

- History
- Voiding diary
- Polysomnography (PLMS, arousability, arousal index, FUSP)
- 24hour urine concentration profile (volume, creatinine, Na, K, Cl)

Desmopressin MELT

Month 6

- History
- Voiding diary
- Polysomnography (PLMS, arousability, arousal index, FUSP)
- 24hour urine concentration profile (volume, creatinine, Na, K, Cl)

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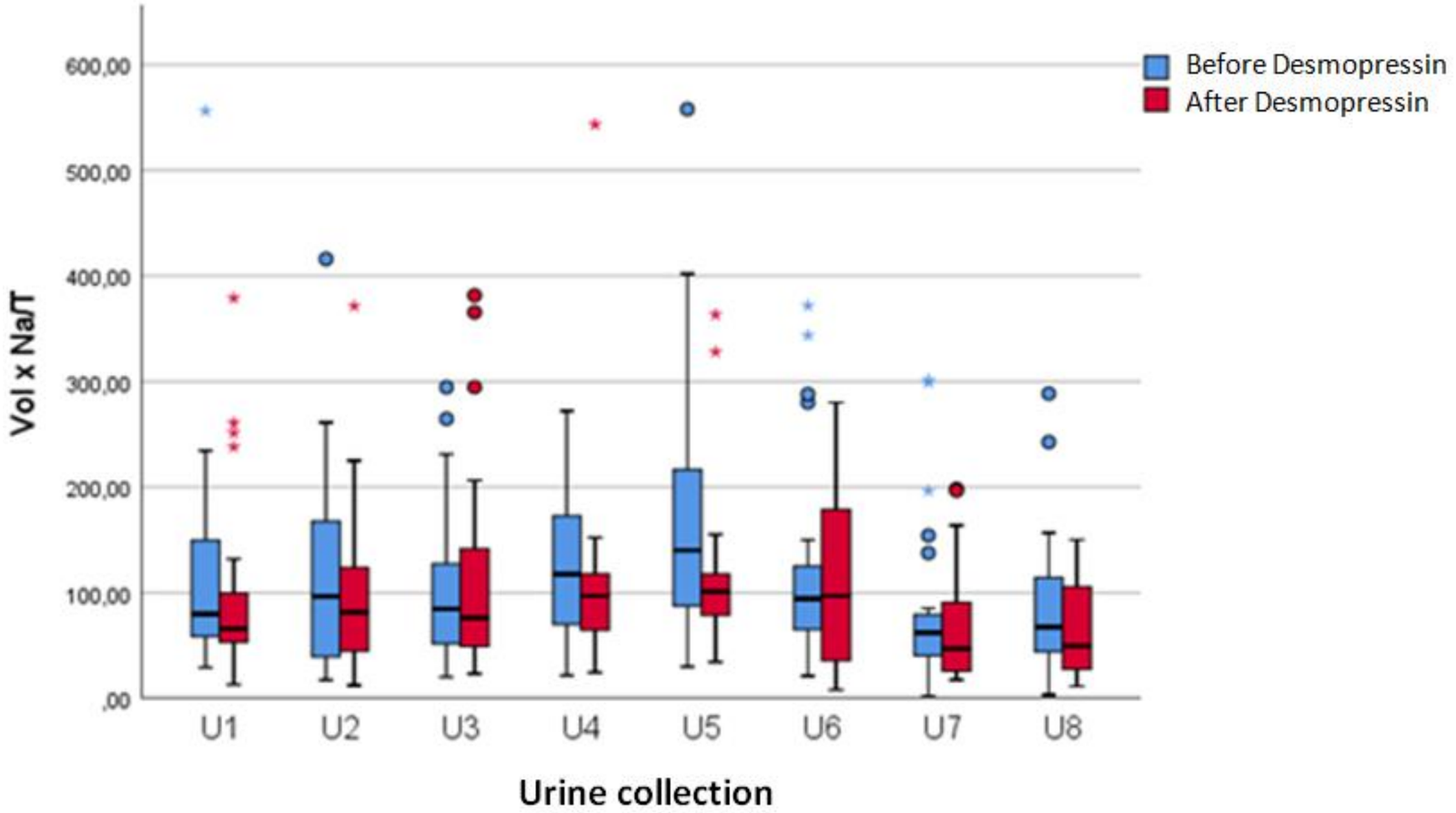
Circadian rhythm of water diuresis and salt excretion in treatment naïve children with nocturnal polyuria and the influence desmopressin response

RESULTS



	U1	U2	U3	U4	U5	U6	U7	U8
Z	-0,821	-0,471	-0,444	-1,466	-2,085	-0,713	-1,224	-1,359
Asymp. Sig. (2-tailed)	0,412	0,638	0,657	0,143	**0,037**	0,476	0,221	0,174

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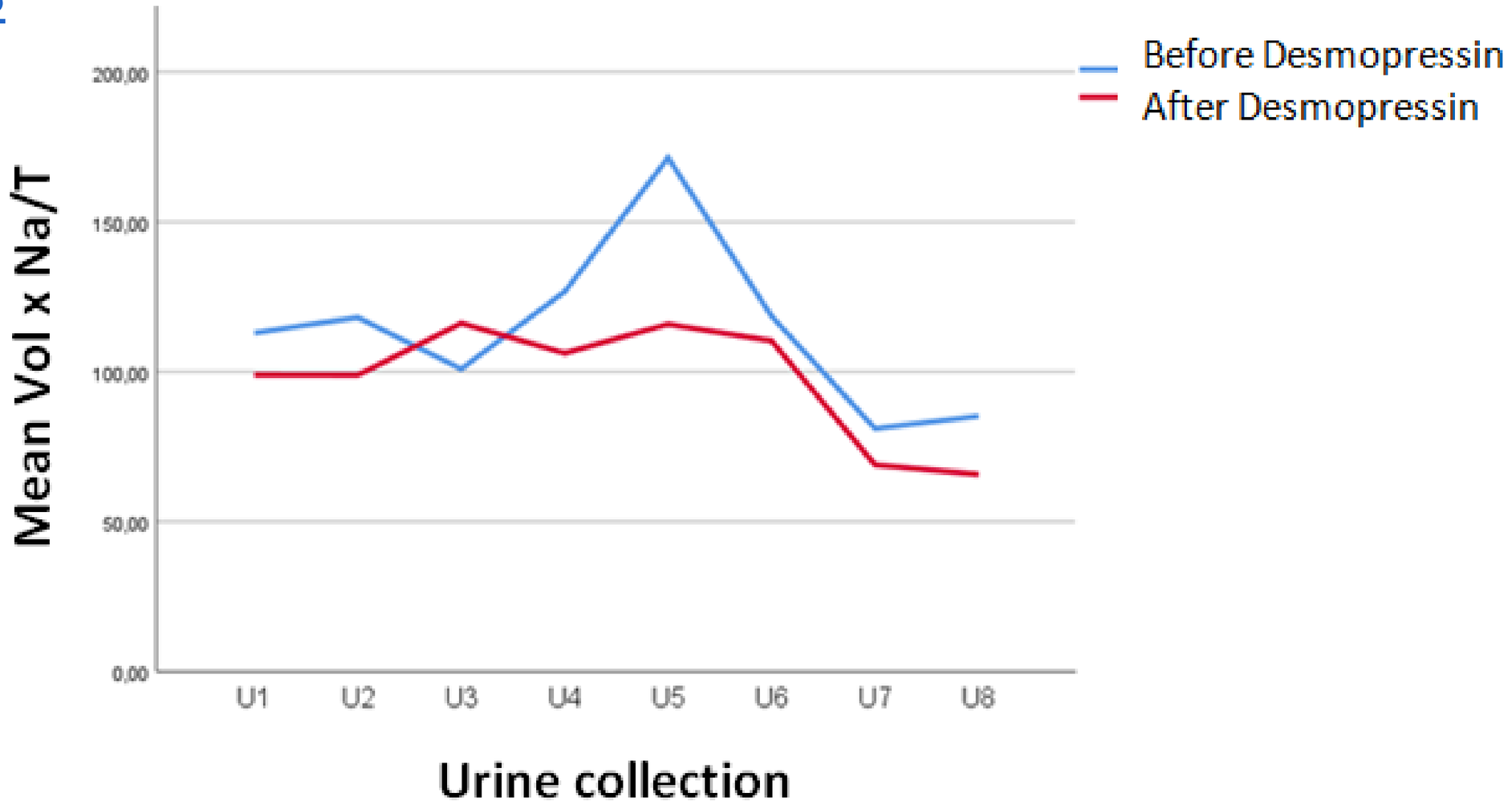

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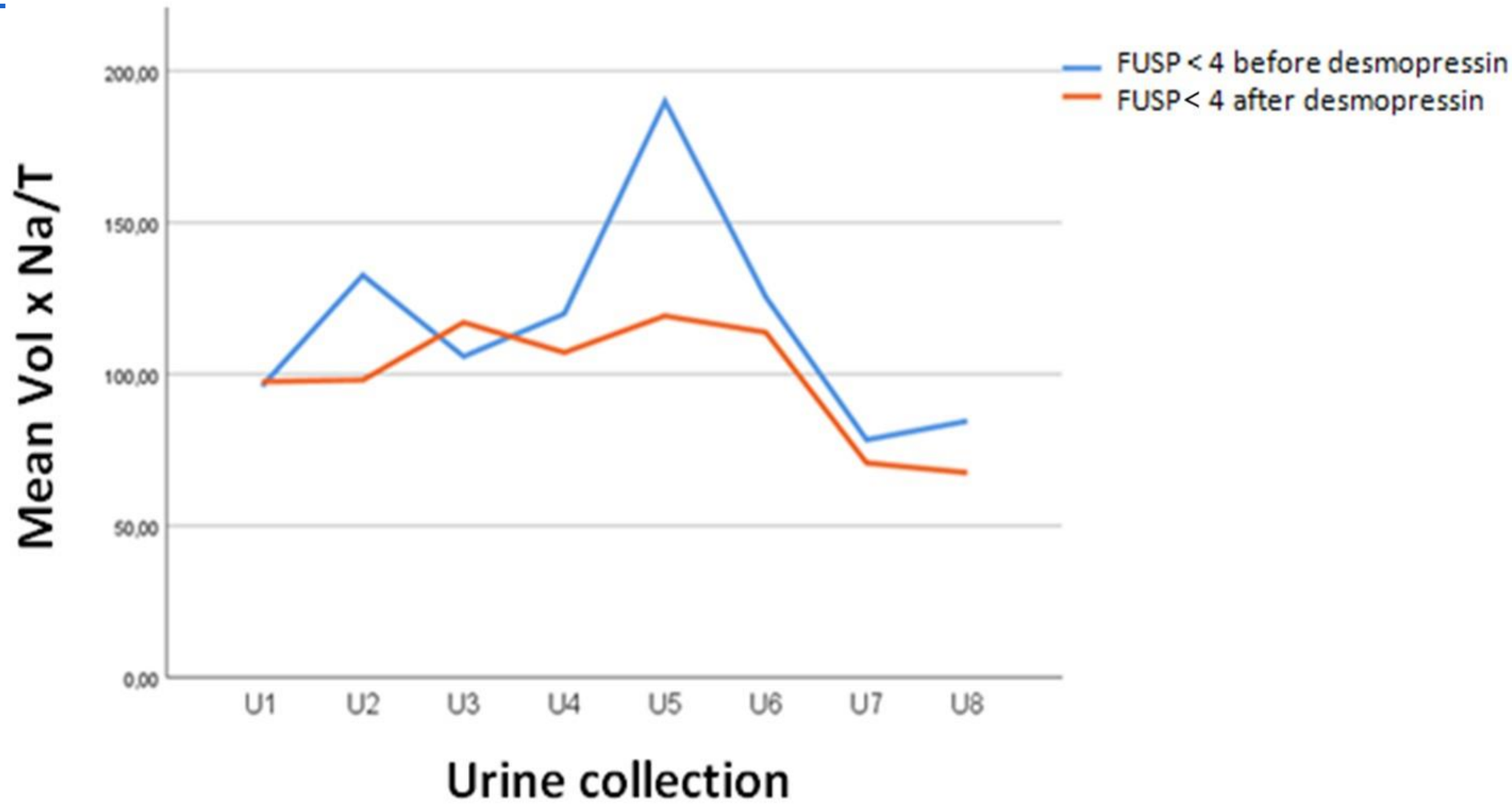

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CONCLUSION

Treatment naïve patients with **Enuresis** and **Nocturnal Polyuria**

- Before desmopressin:
  - ↑ diuresis
  - ↓ osmolality
  - ↑ osmotic excretion
  - FUSP < 4hours

- After desmopressin:
  - ↓ enuretic episodes
  - ↓ nocturnal polyuria
  - ↓ water diuresis
  - ↓ Na excretion → cannot be attributed to desmopressin
    → credited to better sleep during lower filling volumes