Does quality of life differ in patients with Addison's disease on different glucocorticoid therapies?

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Dear Editor,

In March's issue of *Endocrine*, Meyer et al. [1] found that fluctuations in self-reported scores of quality of life (via AddiQoL) correlated to a state of 'pre-crisis' in patients with Addison's disease. Patients who are more unwell tend to have a lower quality of life; as such reverse causality must be considered. Are the symptoms of the impending crisis reducing the quality of life, or is the low quality of life contributing to the onset of adrenal crisis?

Patients were on hydrocortisone, modified release hydrocortisone or prednisolone therapy. The authors did not attribute low AddiQoL scores to any particular glucocorticoid regimen. It would be useful to ascertain whether the type of glucocorticoid therapy has an effect on the patient's quality of life. Unfortunately, the number of patients on prednisolone was too low to sufficiently compare the quality of life to patients on other therapies.

Low-dose prednisolone is an ideal alternative drug to hydrocortisone, due to its once-daily administration. Prednisolone's once-daily administration mimics natural cortisol day curves more closely than thrice-daily hydrocortisone. [2]

Furthermore, its immediate absorption upon administration and slower dissociation from the glucocorticoid receptor make it superior to modified release hydrocortisone. Modified release hydrocortisone relies on persistent and continuous absorption, rendering patients

susceptible to crisis in situations where they have malabsorption due to gastrointestinal infections such as norovirus.

Prednisolone is a more convenient replacement therapy than hydrocortisone. [3] The quality of life in patients on different glucocorticoid therapies needs to be studied as there is no evidence to suggest one is superior to the other at present.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

References

1. G. Meyer, M. Koch, E. Herrmann, J. Bojunga, K. Badenhoop, Longitudinal AddiQoL scores may identify higher risk for adrenal crises in Addison's disease. *Endocrine*. (2018). <https://doi.org/10.1007/s12020-017-1513-0>
2. E.L. Williams, S. Choudhury, T. Tan, K. Meeran, Prednisolone replacement therapy mimics the circadian rhythm more closely than other glucocorticoids. *J Appl Lab Med*. (2016). <https://doi.org/10.1373/jalm.2016.020206>
3. D.J.F. Smith, H. Prabhudev, S. Choudhury, K. Meeran, Prednisolone has the same cardiovascular risk profile as hydrocortisone in glucocorticoid replacement. *Endocr Connect*. (2017). <https://doi.org/10.1530/EC-17-0257>

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