<u>English</u>: Impact of Ramadan Fasting on Vision and Headache-Related Quality of Life in Women with Idiopathic Intracranial Hypertension: A prospective observational study.

Abstract

Background: Ramadan fasting is an obligatory religious practice for Muslims. However, research data on the effect of Ramadan on idiopathic intracranial hypertension (IIH) symptoms are lacking. This study aimed to study the effect of Ramadan fasting on the severity of headache and visual symptoms and related quality-of-life activities.

Methods: This prospective cohort study targeted females diagnosed with IIH (*n*= 102) who were eligible to fast for Ramadan in 2023. The patients were recruited from the Neurology Clinic in Beni-Suef University Hospital, Egypt. Body mass index (BMI), monthly headache days and intensity of headache attacks, six-item Headache Impact Test (HIT-6), and the 25-item National Eye Institute Visual Function Questionnaire (NEI-VFQ-25) scores during Ramadan were compared to those during the (non fasting) month of Shaaban, the preceding month to Ramadan.

Results: There was a significant increase in the BMI of patients with IIH in Ramadan compared to the (non-fasting) month of Shaaban, at a median (interquartile range [IQR]) of $30.5 (26.6-35.8) \, \text{kg/m}_2$ and $30.1 (26.6-35.2) \, \text{kg/m}_2$, respectively (p=0.002).

The median (IQR) value of monthly headache days was significantly increased during Ramadan in comparison to the (non-fasting) month of Shaaban, at 20 (11.5–30)

vs. 15 (10–25) (p< 0.001). There was a statistically significant worsening in the visual analog scale (VAS) scores (median [IQR] 7 [5–8] vs. 6.5 [5–8]), HIT-6 scores (me

dian [IQR] 61 [58–67] vs. 59 [53–61.5]), and NEI-VFQ-25 total scores (median [IQR] 1312.5 [1238.8–1435] vs 1290 [1165–1417.5]) during Ramadan in comparison to the

(non-fasting) month of Shaaban (p < 0.001 for all comparisons). The change in BMI in

Ramadan was positively correlated with the change in monthly headache days (r=0.24, p=0.014), VAS (r=0.20, p=0.043), HIT-6 (r=0.25, p=0.010) and NEI-VFQ-25 scores (r=0.24, p=0.016).

Conclusion: Ramadan fasting had an aggravating effect on headache, visual symp toms, and related quality-of-life activities, which might be attributed to weight gain during this month. Whether proper nutritional management to prevent weight gain during Ramadan may help mitigate this worsening effect is a mission of future studies.2

KEYWORDS

headache, idiopathic intracranial hypertension, quality of life, Ramadan fasting, visual function, weight gain

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