

## **Secondary headaches**

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### **THERAPEUTIC LUMBAR PUNCTURE FOR HEADACHE IN IDIOPATHIC INTRACRANIAL HYPERTENSION: MINIMAL GAIN, IS IT WORTH THE PAIN?**

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**Introduction:** Headache is disabling and prevalent in Idiopathic intracranial hypertension (IIH). Therapeutic lumbar punctures (LP) maybe considered to manage headache. There is a lack of prospective data describing the improvement and exacerbations in IIH headaches in the week post-LP.

**Objectives:** This study aimed to evaluate the temporal change in headache severity in the week following a standardised LP, in patients with active IIH. Furthermore, we aimed to stratify the response to LP by baseline headache severity and evaluate the extent of improvement and the likelihood of an exacerbation. Importantly we also sought to define the influence of LP opening pressure on post-LP headache.

**Methods:** Active IIH patients were prospectively recruited to a cohort study, LP pressure and papilloedema grade were noted. Headache severity was recorded using a numeric rating scale (NRS) 0-10, pre-LP and following LP at 1, 4 and 6 hours and daily for 7 days.

**Results:** 52 patients were recruited (mean LP opening pressure 32 (28-37 cmCSF). At any point in the week post-LP, headache severity improved in 71% (but small reduction of -1.1 2.6 NRS) and exacerbated in 64%, with 30% experiencing a severe exacerbation  $\geq 4$  NRS. Therapeutic LP's are typically considered in IIH patients with severe headaches (NRS  $\geq 7$ ). In this cohort the likelihood of improvement was 92% (modest reduction of headache pain by -3.0 2.8 NRS,  $p=0.012$ , day 7), while 33% deteriorated. IIH patients with mild (NRS 1-3) or no headache (on the day of LP, prior to LP) had a high risk of post-LP headache exacerbation (81% and 67% respectively). Importantly, there was no relationship between LP opening pressure and headache response after LP.

**Conclusion:** Following LP, the majority of IIH patients experience some improvement, but the benefit is small and post-LP headache exacerbation is common and in some prolonged and severe. LP pressure does not influence the post-LP headache.

**Disclosure of Interest:** None Declared

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