British Journal of Healthcare and Medical Research - Vol. 10, No. 3
Publication Date: June 25, 2023
DOI:10.14738/jbemi.103. 14388.
Blatchley, C., & Wilkins, A. **(**2023). Daith Ear Piercing and Migraine Symptoms. British Journal of Healthcare and Medical Research, Vol - 10(3). 154-155.

Daith Ear Piercing and Migraine Symptoms

Chris Blatchley
London Migraine Clinic

Arnold Wilkins
University of Essex

We report the initial results from an ongoing study of Daith ear piercing undertaken in collaboration with experienced piercers at a long-established national UK chain of piercing studios. Daith piercing passes through the cartilage of the *cru's helix*, an area innervated by the auricular branch of the vagus nerve. Historically, Daith piercing was cosmetic, but has become increasingly popular, after unexpected improvement in migraine was first noticed in 1992. Since then, many migraine sufferers have sought a Daith piercing from cosmetic piercing studios and their reports of improvements continue. Apart from isolated case histories there has been no medical investigation. Electrical stimulation of the vagus nerve is an established treatment for migraine and epilepsy that is recognised by NICE in the UK. We hypothesize that the piercing stimulates the vagus nerve by mechanical or inflammatory irritation.

Between 1/8/22 and 14/11/22 a consecutive series of 133 individuals received a piercing for their migraines. At this time, they personally completed an electronic questionnaire providing a detailed history of their migraine headaches. 119 consented to be contacted later by email.

A follow-up questionnaire was sent on 15/01/23, 2-4 months after the piercing, and included both qualitative and quantitative sections concerning migraine frequency and severity. Ninety of the 119 (76%) completed the questionnaire: 84 female and 6 males. Their ages ranged from 19-69 (mean 43); they had suffered migraine for a median range of 11-20 years; 82/91 (91%) had previously received a medical diagnosis of migraine. 58% had migraine with aura.

Qualitatively, 65/90 (72%) reported that the frequency of their migraines was "much better" or that they had "stopped" (59% and 13% respectively). The frequency was "a little better" in 14/90 (16%), whereas 8/90 (9%) reported "no change" and 3/90 (3%) were worse.

Quantitatively, we compared the typical monthly incidence of days with migraine at the time of piercing with the migraine incidence in the month immediately preceding the date of the follow up email. The average incidence of migraine days was reduced by 50% from 6.3 to 3.2 per month, $p<<.0001$ (two-tail related t-test).

For the group of 65 whose migraines had "stopped" or were "much better", the average incidence of migraine days was reduced by 69% from 5.5 to 1.7 per month, p<.0001. For this group, the average monthly number of days off work or in bed was reduced from 3.1 to 0.8, a reduction of 73%, p<.0002, and the average number of completely symptom-free days per month was increased from 9.8 to 16.7, an increase of 71%, p<.0001. Corresponding analyses for the remaining 25 who reported little or no improvement showed no significant change in these measures.

For the entire group of 90, there was a negligible relationship (correlation -0.03) between clients' expectation of migraine relief at the time of piercing (expressed in response to a questionnaire) and their later quantitative improvement. Most of the group were attending because previous treatment in primary care had been insufficient.

When asked at follow-up, "Is the effect of the Daith piercing on your migraines beginning to wear off?", 67/90 (74%) reported "Still working and not wearing off at all" or "Seems to be Improving". 5/90 (6%) reported "It never had an effect". The remaining 18/90 (20%) reported a reduction in effect.

There was some indication that moving the piercing may help abort a migraine attack. When asked at follow-up, 23 of the 65 with a good response reported: stopped the attack (3), helps a lot (4); helps a bit (6), no effect (3); not sure (7).

Infection is a known and managed risk of cosmetic cartilage ear piercing. In our sample, 3/90 patients (3.4%) reported infection that required medical attention but not the removal of the piercing. Separately, prior to completing the follow-up questionnaire, 2 had had the piercing removed because of infection, which then resolved.

Piercing of the *cru's helix* is readily available and costs very little. It clearly merits further exploration as a migraine treatment.

The study received ethical approval from Reading Independent Ethics Committee. There was no external funding.

URL: http://dx.doi.org/10.14738/jbemi.103.14388.