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Migraine Aura and Exercise; A Self-Report.

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ABSTRACT

Migraine auras have some visual components. They lasted for the author usually 3 minutes but with exercise they continued for 11 minutes. In this self-experiment the author ensured an adequate supply of blood to his heart by the release of CGRP to ensure coronary vasodilation sustained for the duration of the exercise. Migraine auras can occur any time. They often but not always have some visual component such as zig-zag lines, or blind spots which may precede or follow the headache and may last anything from minutes to hours¹. (See the figure)

Keywords: Migraine auras, zig-zag lines, Blind spots

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INTRODUCTION

Self-experiments by authors are common.² Here I report on a self-experiment to see what effect exercise may have on the duration of a migraine aura.

The male subject is 96 years old. For about fifty years he has been a chronic exerciser to prevent the incapacitating headache which in his case were associated with his migraine attacks.

Although, a chronic runner he now exercises on a “Concept 2” rowing machine. His visual aura usually lasted about 3 minutes.

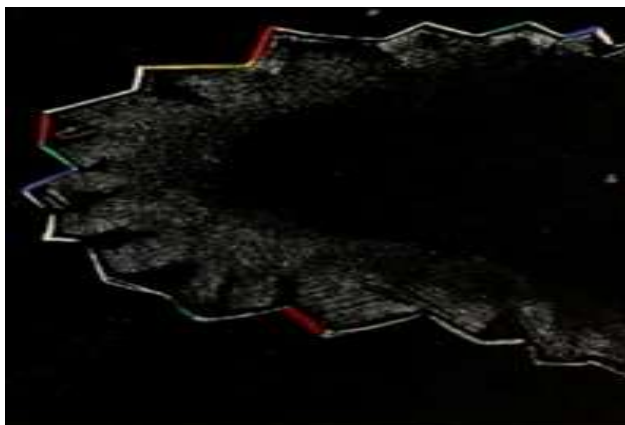


Figure 1: Migraine auras visual aura

However, with his exercise-about 3000 meters- on the “Concept 2” rowing machine the aura (see figure) was prolonged to 11 minutes, an approximately 73% increase in duration.

DISCUSSION

Migraine causes are not entirely understood, genetics and environmental factors may play a role.

Changes in the brainstem and its interactions with the trigeminal nerve might be involved. Serotonin, which helps regulate pain in the nervous system, could also play a role.²

The role of serotonin and other neurotransmitters including calcitonin gene-related peptide (CGRP) is now being actively pursued.³

Regular physical activity exerts cardiovascular protective effects. Exercise is also accompanied by an increased plasma concentration of α -calcitonin gene-related peptide (α CGRP), a 37-amino acid peptide with vasodilatory effects.

CONCLUSION

I report the prolongation of the migraine aura by exercise from the usual 3 minutes to 11 minutes by exercising during the migraine aura. This prolongation might perhaps be attributed to an increase of CGRP release by exercise.⁴ As the author aged his exercise regimen changed. No longer able to run as in his youth he instead uses a concept 2 rowing

machine. But the effects on his migraine aura remain unchanged. Thus exercise remains for the author the best method to live a still productive and pain-free life.

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