Subacute carbon monoxide poisoning presenting as vertigo and fluctuating low frequency hearing loss

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INTRODUCTION

Up to 25000 UK residents are exposed to small amounts of carbon monoxide (CO) annually1. The most common source of carbon monoxide poisoning in domestic setting is a faulty heating system. Symptoms of chronic exposure to CO are vague and non-specific and include dizziness and hearing loss2.

CASE REPORT

• A 38-year-old lady presented to ENT with a four-month history of dizziness and hearing loss.
• She reported intermittent hearing loss, mainly on the right side but denied the presence of tinnitus.
• She also suffered with heaviness and pressure sensation in the head. The was no nausea or vomiting.
• Audiogram revealed unilateral sensorineural hearing loss (SNHL), with thresholds between 30 and 40 decibels (Figure 1).
• All other investigations including MRI brain were normal.
• 6 months later, she reported leakage of carbon monoxide from her gas fire identified during a routine safety check.
• Her symptoms fully resolved after disconnecting the faulty gas fire and her audiograms returned to normal.

Figure 1: Audiogram demonstrating low frequency hearing loss in the right ear.

DISCUSSION

• SNHL in chronic CO poisoning is well documented3.
• Unilateral hearing loss is rare and in association with dizziness can be confused with diagnosis of Meniere’s disease.
• Careful detailed history is key in differential diagnosis of dizziness.
• Rare causes like CO poisoning have to be considered in unexplained hearing loss and dizziness.

References: