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. There 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.