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SWIRLS AND SPRINKLES IN MYSTERIOUS CRYSTAL BALLS

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INTRODUCTION

Vitreous hemorrhage (VH) is one of the commonest differential diagnoses in vision impairment but is very rarely encountered in Emergency Department (ED). Asteroid hyalosis (AH) is a benign posterior chamber abnormality that generally only has minor impact on vision but can mimic VH on ultrasonography assessment.

CASE REPORT

A 61-year-old lady presented to ED with a two-day history of painless decreased vision upon waking up from sleep preceded with a brief episode of headache. She was able to see moving objects but could not recognize people around her. She denied having dizziness, vomiting, fitting, limb weakness, fever, bleeding tendency, and trauma prior. Her medical history was significant for diabetes mellitus type 2, hypertension, dyslipidaemia, chronic kidney disease stage 5, and history of cerebrovascular accident. Ophthalmologic examination showed intact extraocular movements. Bilateral pupils were equal and reactive to light. Visual acuity was hand-waving bilateral eyes. The fundoscopic examination was attempted but failed to visualise fundi due to dense cataract bilateral lenses. General and other cranial nerves examinations were normal. Bedside ocular ultrasound revealed the side-to-side movement of heterogenous echogenicity giving a “washing machine” appearance within the right vitreous chamber, and multiple small echogenic opacities without acoustic shadowing within the left vitreous chamber. Non-contrast-enhanced computed tomography of the head revealed ill-defined hypodensity lesions at the left occipital region, but no obvious abnormality was seen within bilateral eye globes. She was admitted for acute ischemic stroke (AIS) management. VH and AH were treated conservatively after confirmatory B-Scan ultrasonography at the ophthalmology clinic. She agreed for elective cataract extraction surgery.

DISCUSSION

This case emphasizes the significant role of bedside ultrasonography in diagnosing posterior chamber abnormalities in vision impairment particularly when there are multiple contributing pathologies (AIS and pre-existing mature cataracts). VH and AH have potentially missed diagnoses in patients with the limitation for fundoscopy. Plus, it is challenging to differentiate both findings because they are mimicking each other (Stringer et al., 2017).

CONCLUSION

Posterior chamber abnormalities should be highly suspected in vision impairment even in presence of other pathological causes. Challenge comes with the limitation of assessment, however, bedside ultrasonography has high accuracy and promising in use (Lahham et al., 2019).

DECLARATION OF CONFLICT

The authors have no conflicts of interest to declare.

REFERENCES

1. Stringer, C. E. A., Ahn, J. S., & Kim, D. J. (2017). Asteroid Hyalosis: A Mimic of Vitreous Hemorrhage on Point of Care Ultrasound. *Canadian Journal of Emergency Medicine*, **19**(**4**), 317–320. doi:10.1017/CEM.2016.358
2. Lahham, S., Shniter, I., Thompson, M., Le, D., Chadha, T., Mailhot, T., … Fox, J. C. (2019). Point-of-Care Ultrasonography in the Diagnosis of Retinal Detachment, Vitreous Hemorrhage, and Vitreous Detachment in the Emergency Department. *JAMA Network Open*, **2**(**4**), e192162–e192162. doi:10.1001/JAMANETWORKOPEN.2019.2162

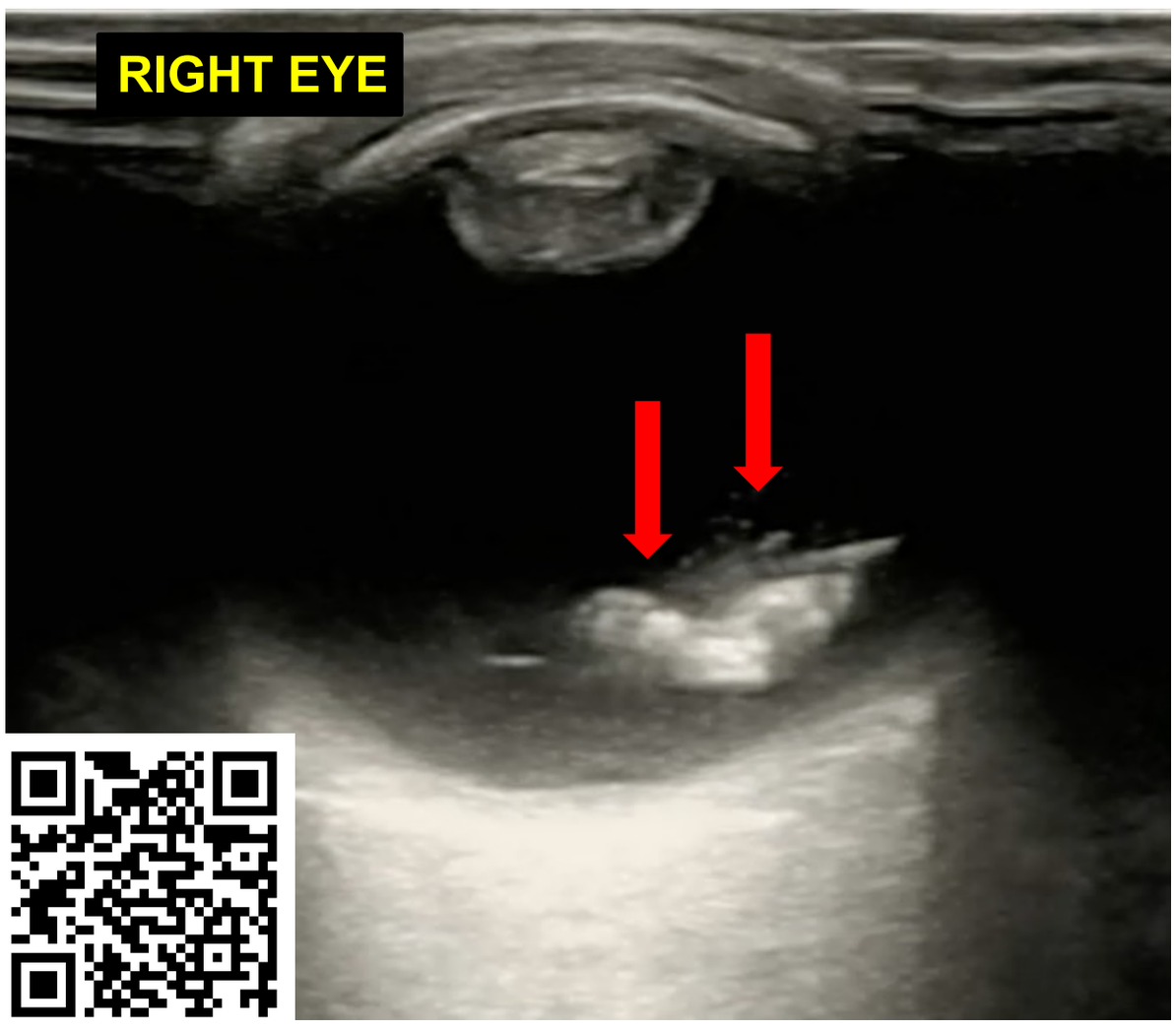

Fig. 1 Transverse ultrasound image of the right eye demonstrating heterogenous echogenicity in vitreous chamber (red arrows).

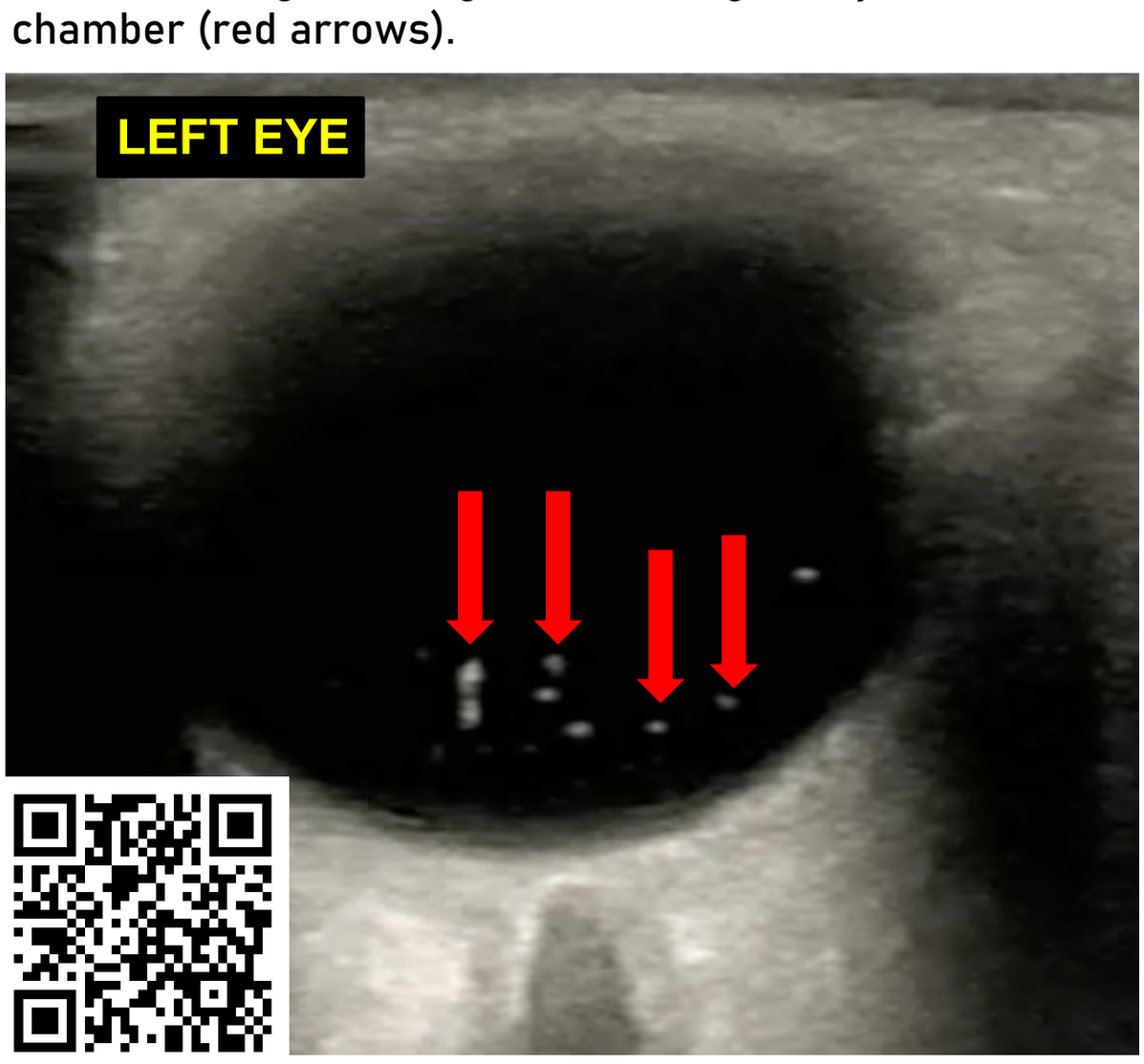

Fig. 2 Transverse ultrasound image of the left eye demonstrating multiple small echogenic opacities in vitreous chamber (red arrows).

Fig. 3 Computed tomography image showing ill-defined hypodensity lesion at left occipital region (yellow arrow).