

CASE REPORT

NON-TRAUMATIC RETINAL DETACHMENT IN A 60-YEAR-OLD MAN ON ULTRASOUND.

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ABSTRACT

Objective: To highlight the important role of ultrasound in early detection of non-traumatic retinal detachment in the management of this condition.

RESULT:

Ultrasonography revealed V-shaped echogenic mobile retinal membrane with the tip attached posteriorly to the optic nerve head. Successful laser surgery carried out confirmed diagnosis.

CONCLUSIONS:

Non- traumatic retinal detachment should be considered in old people with sudden blindness, progressive low vision or light flashes. Early sonographic detection of non traumatic retinal detachment allows for surgery on time to seal the break by laser or cryotherapy and re-establish contact between the detached retina and retinal base, since surgery is the mainstay of treatment.

Keywords: *Ocular, ultrasonography, non-traumatic, retinal detachment*

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INTRODUCTION

Retinal detachment may be due to a break or tear (rhegmatogenous detachment) from degeneration or trauma resulting in the entry of fluid into the sub-retinal space.¹ Non-rhegmatogenous detachment is caused by either vitreoretinal traction from contracting membranes or subretinal exudates.¹⁻³ Retinal detachment occurs in approximately 1: 10,000.^{4,5} in the general population. Most retinal detachments occur between the ages of 50 and 65 years.⁴ In other

words the risk of retinal detachment increases with age. The male to female ratio is 2: 1.⁴

Although a minority of retinal detachments remain stationary for years, if untreated most retinal detachments become total and progressively immobile due to the development of preretinal fibrosis. The retina contracts to form a naut membrane between the optic disk and periphery. Many rhegmatogenous detachments have an associated choroidal detachment.

CASE REPORT

Presentation and Examination: A 60-year-old man who presented in the Eye clinic in Lagos University Teaching Hospital (LUTH) agitated and with complaints of sudden blindness in the left eye three days prior to presentation. He admitted to having progressively low vision and light flashes. He had been using corrective glasses for myopia for over 30years. Examination showed a healthy looking elderly man who was agitated and anxious. There was normal visual acuity with light perception in the right eye. Light perception with reduced visual acuity was noted in the left eye. There was hyperaemia with edematous optic disc in the left eye.

A provisional diagnosis of blindness of left eye retinal detachment was made. The patient was then sent for ocular ultrasonographic scan in the radiodiagnosis department.

OCULAR ULTRASONOGRAPHY:

Ocular ultrasonographic scan was performed on both eyes using 7.5mHz linear probe with Siemens sonoline SLI ultrasound machine after the application of acoustic gel to the skin to bridge the skin-probe interface. This examination was performed with the patient lying supine on the couch and the eyes closed.

The probe was then placed in contact with skin and patient was asked to move the eyes from left to right, back, forth (i.e. medially and laterally) and centre (by looking straight) repeatedly.

Ocular Ultrasonographic Findings:

Dynamic ultrasonographic scanning revealed an undulating whiplash motion, funnel or V-shaped

echogenic mobile retinal membrane with the tip attached posteriorly to the optic nerve head (Fig. 1).

A diagnosis of retinal detachment was then confirmed with successful surgery using laser to re-establish contact between the detached retina and retinal base.

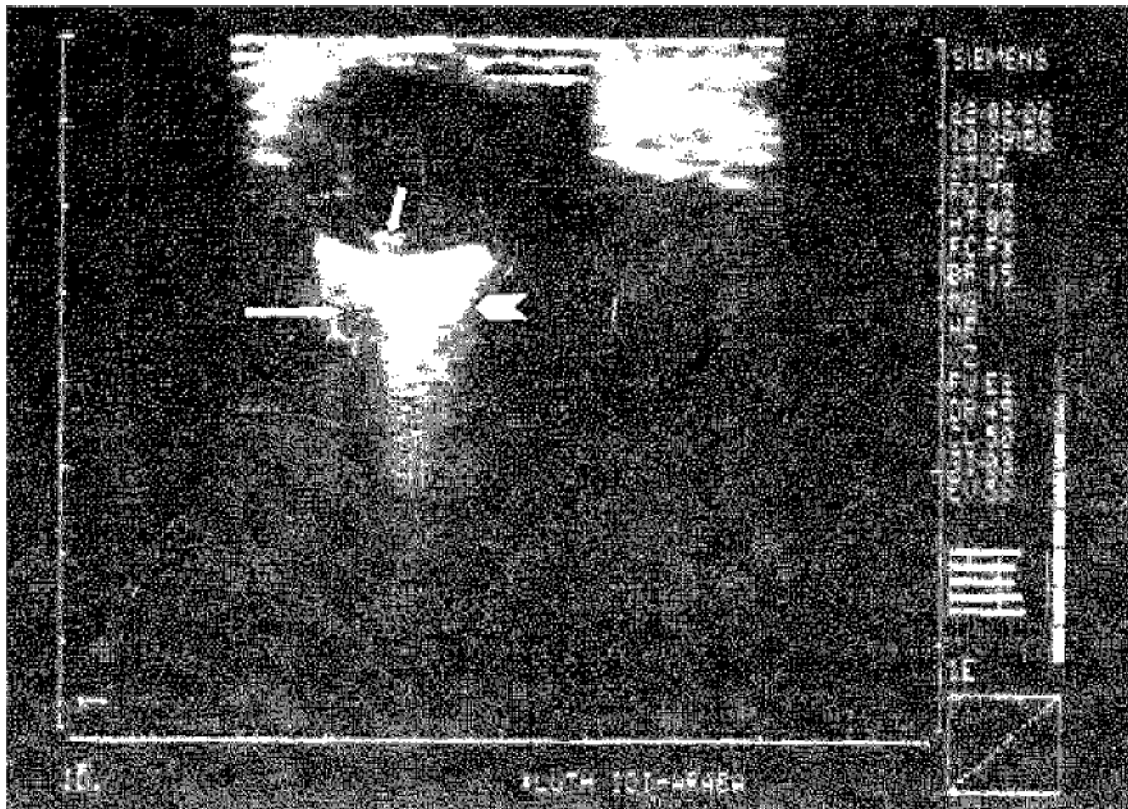


Figure 1: Ocular ultrasound scan showing V-shaped membrane with attachment to optic disc due to detached retina (short white arrow), optic nerve (long white arrow) and retrobulbar fat (arrow head).

DISCUSSION

Majority of retinal detachments are due to a break or tear resulting in degeneration or traumatic entry of fluid into the sub-retinal space. (Fig. 1) This is termed rhegmatogenous and it accounts for 85% of all retinal detachments.⁶ The non-rhegmatogenous type is caused by either vitreoretinal traction from contracting membranes' or sub retinal exudates.^{2,3} A study carried out showed that there is a significant correlation between rhegmatogenous retinal detachment and myopia, it further stated that the prevalence of retinal detachment in myopic eyes is related to the prevalence of the disease precursors in such eyes.⁶

The statement was supported by other authors.⁷⁻⁹ as in the reported case patient had myopia before retinal detachment.

Non traumatic retinal detachment is more common than traumatic retinal detachment. Non traumatic ones are commoner in the elderly, as in the reported case, whereas the traumatic retinal detachments are more prevalent in the younger age group.⁴ Retinal detachment may be asymptomatic¹⁰ which can safely be observed. The patient may present with slowly progressing, low or reduced vision or total blindness in the affected eye.¹¹ Reduced visual acuity, optic edema and light perception may be present, in this

disease.¹¹ The ultrasound examination may show a tunnel - shaped appearance of the echogenic detached retinal membrane, particularly in recent, rhegmatogenous detachment as in the reported case.

Dynamic scanning may reveal undulating sinuous, or whiplash motion of the retinal membrane, though minority may remain stationary for years.¹ ting motion of the V-shaped retinal membrane. The retina contracts to form a taut membrane stretched between the optic disc and periphery.^{1,5,6} Surgery is the main stay of management using laser or cryosurgery.³

Though conservative management has been tried for symptomatic retinal detachment, it has not been as effective as surgical management.¹⁰

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