

## Retained multiple contact lenses in a vulnerable dementia patient

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### Abstract

We report a case of an 85-year-old female nursing home resident with a background of dementia, who presented to the eye casualty clinic complaining of an 8-month history of a painful red eye and reduced vision. Treated 'on and off' by various doctors and healthcare professionals with antibiotic drops for eight months with no improvement. Eversion of the upper eye lid revealed an infected foreign body which turned out to be multiple contact lenses stacked on top of each other. Further history taking from her son suggested that the contact lenses were possibly left in for 3 years or longer when he noticed carers stopped replacing them at the care home. Patients with dementia are vulnerable adults and are at an increased risk of intentional or unintentional abuse and neglect. Careful care and attention should be given when taking a history and examining a patient with dementia. The case also highlights the importance of upper lid eversion as part of a thorough eye examination especially in patients who might have difficulty providing a history of a misplaced contact lens. This is the first such case to the best of our knowledge of retained contact lenses in a dementia patient. Patients with dementia should be advised against contact lens wear. Also the need for careful mandatory documentation in the clinical notes and communications to the general practitioner or care home about the insertion and removal of contact lenses with dates and name of professional performing this.

**KEY WORDS:** Contact lenses; carers; dementia; eyelid; foreign bodies.

### Riassunto

Descriviamo il caso di una donna di 85 anni residente in una casa di cura ed affetta da demenza, che si è presentata presso una clinica oculistica lamentando da circa 8 mesi la presenza di un occhio rosso e dolente e calo della vista. Trattata saltuariamente da vari medici e sanitari con colliri a base di antibiotico per 8 mesi senza miglioramenti. L'eversione della palpebra superiore ha rivelato un corpo estraneo infetto che si è rivelato essere compost da molteplici lenti a contatto una sopra l'altra. L'anamnesi clinica approfondita tramite il figlio ha indicato che le lenti a contatto erano lì da 3 anni o più, ovvero da quando il figlio era a conoscenza del fatto che la badante non le sostituisse più presso la casa di cura. I pazienti con demenza sono adulti vulnerabili e sono ad aumentato rischio di abuso e trascuratezza intenzionale e non. Una cura particolare dovrebbe essere data quando si raccoglie l'anamnesi e si esamina un paziente affetto da demenza. Questo caso clinico evidenzia anche l'importanza dell'eversione della palpebra superiore come parte dell'esame clinico oculistico specialmente in pazienti che potrebbero avere difficoltà a fornire una storia di lenti a contatto mal posizionate. Questo è il primo caso, al meglio della nostra conoscenza, di lenti a contatto ritenute in un paziente con demenza. I pazienti affetti da demenza dovrebbero essere consigliati a non usare lenti a contatto. Ancora è necessaria una documentazione attenta ed obbligatoria nelle note cliniche e comunicazioni con il medico di fiducia o la casa di cura sull'inserimento e la rimozione delle lenti a contatto con la data ed il nome del professionista che esegue tali operazioni.

### TAKE-HOME MESSAGE

*We report a case of multiple contact lenses retained for three years in the upper eyelid subtarsal space of a nursing home resident with dementia. A painful, red eye is a very common presentation in ophthalmology that requires detailed history taking and careful examination. Additional challenges in assessment arise when dealing with vulnerable adults.*

**Competing interests** - none declared.

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## INTRODUCTION

A vulnerable adult can be defined as “a person who is or may be for any reason unable to take care of him or herself, or unable to protect him or herself against significant harm or exploitation” [1]. Patients with dementia who become ill will usually have difficulty explaining their symptoms clearly, will often resist therapy and will often prove to be difficult in complying with instructions. These patients are therefore seen as ‘vulnerable’ and care of these group of patients should therefore differ from the care and management of cognitively intact individuals. We report a case of retained contact lenses in a vulnerable adult presenting with a severely infected red eye, pain and reduced vision.

## CASE REPORT

This is a case of an 85-year-old female nursing home resident with a background of dementia who presented to the eye casualty clinic complaining of an 8-month history of a painful, watery, sticky left eye with reduced vision (counting fingers). Treated ‘on and off’ multiple times with chloramphenicol eyed drops by various health professionals with no benefit. During the assessment by us, eversion of the right upper eye lid was difficult and needed patience, skill and perseverance but interestingly revealed a firm, presumably infected foreign body covered in pus which turned out to be multiple contact lenses stacked on top of each other (Figure 1). Further history taking from the son suggested that the contact lenses were possibly inadvertently left behind in for 3 years or longer when he noticed carers stopped replacing them at the care home. Both the patient and her son were not sure regarding the reason for contact lens insertion but seemed to be for refractive purposes. The contact lenses were removed and antibiotic drops prescribed. The contact lenses as well as a conjunctival swab were sent to microbiology. Topical antibiotics were modulated as per microbiology. Ultrasound scan was arranged to assess the fundus of the eye since the view was obstructed by a cataract in keeping with the age of the patient. Signs of clinical and

symptomatic improvement were quickly seen and the patient and his son were happy with that.

## DISCUSSION AND CONCLUSION

To our knowledge, this is the first case in the literature describing multiple contact lenses retained in a vulnerable adult and presenting as an infected painful red eye. In ophthalmology, foreign bodies can be trapped on the cornea commonly but also on the posterior aspect of the palpebral conjunctiva in the upper tarsal edge and can go unnoticed or missed until the upper eyelid is everted for detailed examination. There have been cases in the literature describing retained contact lenses presenting as a cyst, chalazion or mass [2–5] and a more recent case report discussed a retained bandage contact lens in a patient with bilateral dry eye symptoms. The contact lens was left for over 5 years and was only discovered when the patient similarly presented to eye casualty and the upper eye lid was everted [6]. There is also a report of an eyelid tumor caused by a migrated hard contact lens [7], and also contact lenses causing serious complications like corneal perforation [8]. We report a case of retained contact lenses in a vulnerable adult presenting with a severely infected red eye, pain and reduced vision. We chose this case as it highlights the importance of careful history and examination in patients with dementia and vulnerable adults in general. Though similar cases have been described in other settings as mentioned above, to our knowledge, this is the first case in the literature describing several contact lenses retained in a vulnerable dementia adult. This case highlights the importance of detailed upper lid eversion as part of a thorough eye examination especially in patients who might have difficulty providing a history of a misplaced contact lens. One could argue that patients with dementia should be advised against wearing contact lenses as they require special care, strict hygiene and continuous replacement, and will be unable to explain their symptoms clearly and thus at risk. It is also recommended that a mandatory record kept



**Figure 1.** Multiple discoloured contact lenses found after upper eyelid eversion.

in the clinical notes with date and signature of the person removing and replacing contact lenses especially for vulnerable for documentation, traceability and patient safety. Careful care and attention should be given when taking a history and examining patient with dementia. Because of the difficulty in assessing this group of patients, it is important to involve the caregiver and family members in the consultation by obtaining a thorough collateral history. Because some patients might not accurately report symptoms, a thorough clinical examination is required which needs patience and meticulous steps. The retained contact lenses remained undetected for 3 years despite the patient having been to several clinical visits during the past 8 months. This could have been due to the nature of the patient's disability and her inability to accurately report and explain her symptoms as well as difficulty in complying with instructions. Having a family member who knew the patient's history and helped explain the examination and keep the patient calm throughout proved to be vital in completing a thorough assessment. It is also important to allocate additional time when seeing vulnerable adults.

It may take longer to carry out the examination and perform any tests and it is best for the patient not to feel rushed.

In the current ongoing covid19 pandemic, there have been reports advising stopping contact lens wear totally [9]. It is also important for contact lens wearers to be able to voice their concerns if they get any contact-lens-related problems such as eye discomfort and vision problems. Patients with dementia will be unable to explain their symptoms clearly and thus many contact lens related problems can be left unnoticed. Retained contact lenses present a serious health risk to this cohort of patients and if retained long enough and left untreated, infected contact lenses can ultimately lead to major complications including blindness in the affected eye. It is also recommended that a record kept in the clinical notes with date and signature of the person removing and replacing contact lenses. Though this case presented in pre Covid-19 times, this aspect is now even more relevant in the post Covid-19 era, where risk of spread of infections are even higher, spread of the virus not fully understood yet and there is difficulty in safe follow up of elderly cases.

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