

LIKELY HYPERSENSIVITY TO 20 % AUTOLOGOUS SERUM EYE DROPS

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Background

Autologous serum eye drops possess tear-like, antimicrobial and optical properties and are usually non-allergenic. All these features are responsible for its therapeutic effect.

Purpose

Describe an adverse reaction attributed to the use of 20% autologous serum eye drops formulated in the hospital pharmacy department.

Material and methods

68-year-old woman diagnosed with dry eye syndrome. By request of the ophthalmology department, a 20% autologous serum eye drops was prepared as magistral formulation. The serum is separated from the rest of the blood components by centrifugation and then diluted with buffered irrigation solution (BSS®). The pharmacy department provided the patient with information about preservation and administration method. The causality relationship was determined by applying the Karch-Lasagna algorithm modified of Naranjo.

Results

Time after beginning autologous serum eye drops	Symptoms	Action/treatment	Resolution
7 days	Palpebral eczema, erythema, burning sensation and edema in both eyes	None	
21 days	Symptoms aggravated causing treatment discontinuation	Symptomatic treatment with hydrocortisone ointment in the edematized area	In approximately one week symptoms ceased
36-39 days	The reintroduction of autologous serum eye drops caused in three days time the same but more severe symptoms	The patient attended the emergency service, eye drops treatment was definitely discontinued. Began treatment with hydrocortisone ointment and carmelose lubricating gel	Symptoms resolved in a few days

The causality relationship following the application of the algorithm turned out to be probable. This adverse reaction was reported to the pharmacovigilance centre and the ophthalmology department was contacted to consider conducting a sensitivity test by the allergy department, as well as to rule out autoimmune pathology.

Conclusions

Patients treated with autologous serum eye drops respond with good tolerance and few or none side effects. In any case, it can produce a slight eye irritation, burning and tearing that often disappears after a few minutes. Some complications have been described such as the deposit of immunoglobulins in the cornea in patients with autoimmune pathology. However, the present case reveals a likely hypersensitivity reaction attributable to its use in absence of a diagnosed autoimmune pathology.