The Royal College of Ophthalmologists Annual Congress
The ROYAL COLLEGE of OPHTHALMOLOGISTS
24–27 May 2021

Bilateral reactive dacryoadenitis secondary to immunomodulatory treatment with Atezolizumab for metastatic breast cancer

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A 60 year old female diagnosed with triple negative breast cancer (TNBC) was commenced on treatment with Atezolizumab (ATZ) and Paclitaxel (PTX).

She presented to her primary care doctor with severe bilateral upper lid swelling affecting her visual field, which developed within 10 days of commencing treatment.

This swelling initially responded to oral steroids, but recurred following a further cycle of immunotherapy.

On examination in eye clinic she was found to have firm, non-tender, reducible masses in the region of the lacrimal glands. These were associated with bilateral upper lid S-shaped deformities suggestive of lacrimal gland enlargement.

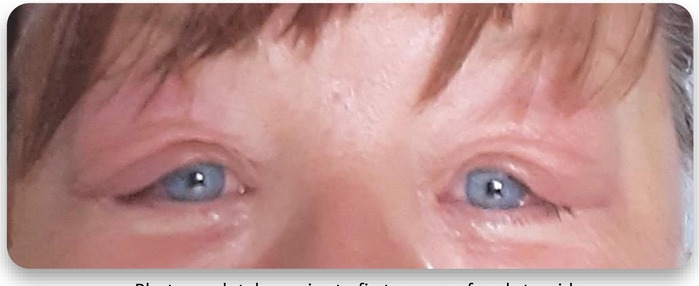
Visual acuity, ocular motility and optic nerve function were normal. There was no evidence of globe displacement.

A presumptive diagnosis of reactive dacryoadenitis was made.

MRI of the orbits showed bilateral symmetrical enlargement of the lacrimal glands without associated focal identifiable masses.

The patient's symptoms continued to improve and the inflammation resolved without further treatment.

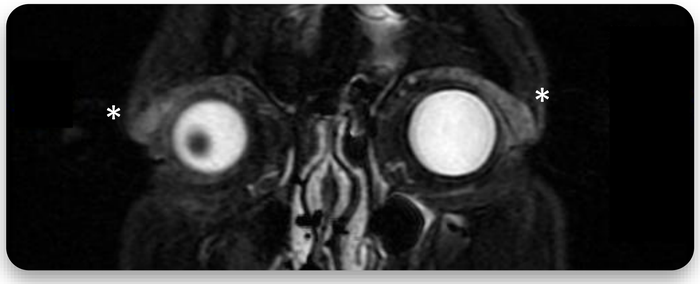
Follow-up at 12 months revealed complete resolution of lid swelling with no residual lacrimal gland prolapse.



Photograph taken prior to first course of oral steroids
(used with patient consent)



MRI scans showing bilateral lacrimal gland enlargement (*)



Atezolizumab (ATZ) is a monoclonal antibody which was approved for treatment of metastatic triple-negative breast cancer (TNBC) in early 2019.

Previously reported serious adverse ocular events with ATZ include keratitis and orbital myositis, but there are no reports of lacrimal gland involvement.

Although ocular side effects have also been shown with PTX treatment, an ongoing clinical trial comparing PTX+ATZ versus PTX+placebo has only shown ocular side effects in the ATZ group.

To our knowledge, this is the first reported case of reactive dacryoadenitis following treatment with ATZ.

This case highlights that new and emerging immunotherapies can have unexpected ocular manifestations.

Reference:
ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000 Feb 29. Identifier NCT03125902, A Study of Atezolizumab and Paclitaxel Versus Placebo and Paclitaxel in Participants With Previously Untreated Locally Advanced or Metastatic Triple Negative Breast Cancer (TNBC) (IMpassion131); 2017 Apr 24 [cited 2021 Apr 27]. Available from: https://clinicaltrials.gov/ct2/show/results/NCT03125902