

The Bulletin from the Clinical Pharmacist



Pharma Today

A female patient of 63 years with the complaint of bilateral shoulder pain for 2 weeks was prescribed with Alendronate Sodium, 35mg, weekly once.

She experienced pain, redness in both the eyes, also photophobia and watering in the eyes after the first dose.

She had a past history of Dyslipidemia and Hypothyroidism and was on regular medication.

Clinical findings:



Diagnosis was made as **Bisphosphonate Induced Uveitis**.

Alendronate, a bisphosphonate used to treat and prevent osteoporosis. It works by preventing bone breakdown and increases bone density.

Discussion:

- Uveitis is an inflammation of the uvea, the middle layer of the eye.
- The underlying mechanism may result from an immune-mediated reaction, involving activation of T cells or other immune components. It also involves direct toxicity and hypersensitivity reaction.
- In a study, it is demonstrated that Bisphosphonates like alendronate and etidronate increases the production of inflammatory cytokines such as IL-6 and IL-8. It may also develop leucopenia and elevated C-reactive protein which can develop these ocular adverse effects.¹

Reference:1. Or C, Cui J, Matsubara J, Forooghian F. Pro-inflammatory and anti-angiogenic effects of bisphosphonates on human culture retinal pigment epithelial cells. Br J Ophthalmol.2013;97:1074–8.