

# Lung caught in Nilutamide treatment

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## DESCRIPTION

An 86-year-old male patient was attended with dyspnoea for 2 weeks, with progressive worsening, dry cough and decreased appetite. He had a personal history of prostate cancer diagnosed 2 years before and dyslipidaemia. He denied smoking history, exposure to inhaled toxic substances or family history of chronic lung disease. The patient was receiving treatment with rosuvastatin 10 mg and nilutamide 150 mg which was started 1 month earlier. On physical examination we found the patient with globally decreased breath sounds and crackles at the base of the right hemithorax. Laboratory tests showed no other abnormalities besides C-reactive protein 69 g/L and slight hypoxaemia.

The chest X-ray showed bilateral interstitium infiltrates with slight effacement of the costophrenic angles and elevation of the right hemicupula (figure 1A). The thorax CT scan was consistent with interstitial pneumonitis (figure 1B, C). Serological tests for viral atypical organisms, anti-nuclear antibodies, ACE inhibitors and antineutrophil cytoplasmic antibodies were carried out but with negative results. Pulmonary function tests, alveolar lavage and lung biopsy were not performed. The treatment with nilutamide was discontinued and the patient was started on bronchodilator therapy and prednisolone 40 mg/day with clinical improvement after 3 days of hospitalisation and discharge from hospital at day 14 with normal clinical observation, gasimetric normalisation, negative RCP and improved chest X-ray imaging. Nilutamide is a non-steroidal antiandrogen, which competitively inhibits the binding of androgens to the androgen receptor.<sup>1</sup> Interstitial pneumonitis is an extremely rare, although

reversible, adverse reaction to non-steroidal antiandrogen treatment, being described in 1–2% of the patients taking the drug.<sup>2</sup> The mechanisms by which non-steroidal antiandrogens cause pulmonary disease remain unclear.<sup>3</sup>

The onset of symptoms was reported 2–8 months after the beginning of the treatment.<sup>2</sup> The prognosis of drug-induced pneumonitis is relatively good and can be treated with the withdrawal of the drug with or without the association of steroids.<sup>3</sup>

## Learning points

- ▶ Nilutamide is a non-steroidal antiandrogen, related to bicalutamide and flutamide.
- ▶ Interstitial pneumonitis is an extremely rare adverse reaction described in 1–2% of the patients taking the drug.
- ▶ The prognosis is relatively good and can be treated with the withdrawal of the drug with or without steroid treatment.

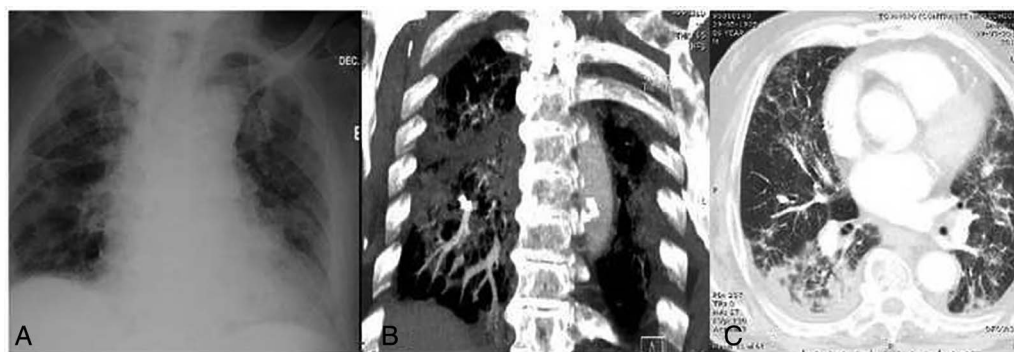
**Competing interests** None declared.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.

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**Figure 1** (A) Chest X-ray on admission: Bilateral interstitium infiltrates with slight effacement of the costophrenic angles and elevation of the right hemicupula. (B) Coronal and (C) Cross-section of thorax CT showing accentuation of interstitium with several parenchymal infiltrates, outlining condensation zone in the lower lobe of the right lung, with thin pleural effusion.



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