

SEVERE PHOTOTOXICITY REACTION ASSOCIATED WITH VANDETANIB: A CASE REPORT

M.D.P. BRICEÑO CASADO¹, M.D. GIL-SIERRA², C. MORENO RAMOS², B. DE LA CALLE-RIAGUAS³, C.M. CUADROS-MARTINEZ¹.

¹HOSPITAL UNIVERSITARIO DE JEREZ DE LA FRONTERA, HOSPITAL PHARMACY, JEREZ DE LA FRONTERA, SPAIN. ²HOSPITAL UNIVERSITARIO PUERTO REAL, HOSPITAL PHARMACY, PUERTO REAL, SPAIN. ³HOSPITAL NUESTRA SEÑORA DEL PRADO, HOSPITAL PHARMACY, TALAVERA DE LA REINA, SPAIN.

BACKGROUND AND IMPORTANCE

Vandetanib → tyrosine kinase inhibitor used for the treatment of metastatic medullary thyroid cancer (MMTC). This drug has been associated with phototoxicity, but rarely severe.

AIM AND OBJECTIVES

To report a case of **severe phototoxicity reaction** associated with **vandetanib**.

MATERIAL AND METHODS

- The clinical management of a case with rare phototoxicity adverse reaction was described.
- Electronic medical records were used to collect patient data: baseline clinical context, adverse events, treatment, and clinical evolution.
- **Naranjo algorithm** → used by hospital pharmacist to establish the causality of phototoxicity.



RESULTS

- An **82-year-old man** newly diagnosed with **MMTC** started treatment with **vandetanib**.
- **After 12 days**, he presented slight rash in dorsal region. The patient received one radiotherapy session.
- **17 days after starting vandetanib**, he visited **Emergency department** for generalised **erythema** (on face, neck, upper and lower limbs), **flushing and pruritus**, related to **brief sun exposure**. The patient was treated with single dose intramuscular methylprednisolone and oral dexchlorpheniramine. Vandetanib and radiotherapy were discontinued.



- **5 days later**, the patient presented **severe deterioration**, progression of erythema and intense edema in hands, feet and face. Deflazacort was prescribed. After diagnosis by Dermatology department of acute phototoxic eruption, treatment was started with prednisone 45 mg/day for 7 days with progressive decrease, emollients and topical methylprednisolone.

- **Between days 26-40**, gradual **improvement** of edema and erythema was observed without appearance of new toxicity. Prednisone dose was reduced. Progressively, **desquamation** and **scabs** were observed on both hands, with improvement of leg and foot ulcers. **Poor pain control** required tapentadol 25 mg/12 hours.
- **On day 62**, there was a **worsening** with increased erythema since oral prednisone was reduced. Treatment with **Polypodium leucotomos**, **vitamin D, C** and **E** was initiated.
- **On day 68**, there was a **significant improvement** with **no itchiness**.
- **3 months after symptom onset**, itching and erythema had almost disappeared. Remaining hyperpigmentation of the skin was observed.

Naranjo's algorithm → determined a **probable relationship (score 5)** and reintroduction of vandetanib was discouraged.

CONCLUSION AND RELEVANCE

Hospital pharmacist determined a probable relationship between vandetanib and severe phototoxicity reaction in a patient with MMTC. The role of hospital pharmacists is essential in pharmacovigilance and in informing patients about possible adverse events of drugs.

