Successful Treatment with Radiotherapy in a Patient who Developed Severe Graves-like Ophthalmopathy After Treatment with Pegylated Interferon Alpha-2A for Hepatitis C.

Carmen Acosta Calero<sup>1</sup>, Claudia Arnás León<sup>1</sup>, Ruth Carmona Vigo<sup>2</sup>, Sara Quintana Arroyo<sup>1</sup>, F. Javier Martínez Martín<sup>1</sup>, Pedro Jiménez Santana<sup>3</sup>. 

<sup>1</sup>Endocrinology & Nutrition Dpt, <sup>2</sup>Radiotherapy & Oncology Dpt, <sup>3</sup>Internal Medicine Dpt, University Hospital Dr. Negrín, Las Palmas de Gran Canaria, Spain.

## Introduction

- Interferon treatment for hepatitis C has been associated with Graves-like thyroiditis, developing in rare instances severe ophthalmopathy.
- The usual management is interferon withdrawal and high-dose corticosteroids, but it may interfere with the resolution of hepatitis. Hereby we report a case successfully treated with radiotherapy, which in our knowledge has never been previously reported.

## Case Report

- •A 52 year old woman was diagnosed of chronic hepatitis C (serotype 1) and began treatment with pegylated Interferon Alpha-2A (Pegasys®, 180 µg weekly) and ribavirin (1200 mg daily), After a year, she achieved clinical, biochemical and virological remission and the treatment was withdrawn.
- •In the last month of antiviral treatment, the patient reported symptoms of hyperthyroidism, eyelid swelling and diplopia. TSH was suppressed and free T4 was 2.27 ng/dL (0.70 1.48). Tc-99m scintigraphy (image 1) showed irregular uptake with cold areas. The ultrasonography showed multinodular goiter, and the FNAC was reported as chronic lymphocytic thyroiditis (Bethesda 2).
- An orbitary CT scan showed prominent enlargement of muscle and retro orbital fat with exophthalmos. The ophthalmologist recommended high-dose corticosteroid pulses, but we were concerned about the risk of hepatitis recurrence.
- The patient received standard methimazole treatment for hyperthyroidism and 10 Gy of retro orbital radiotherapy (1 Gy/fraction; 1 weekly fraction) (image 2 and 3). After the seventh session, the diplopia remitted and the patient is presently asymptomatic.

## Conclusions

•Retro orbital radiotherapy should be considered as an alternative treatment for Graves-like ophthalmopathy associated to interferon treatment, avoiding the need for high-dose corticosteroids which may result in hepatitis recurrence.



Image 1. Tc-99m scintigraphy showed irregular uptake with cold areas

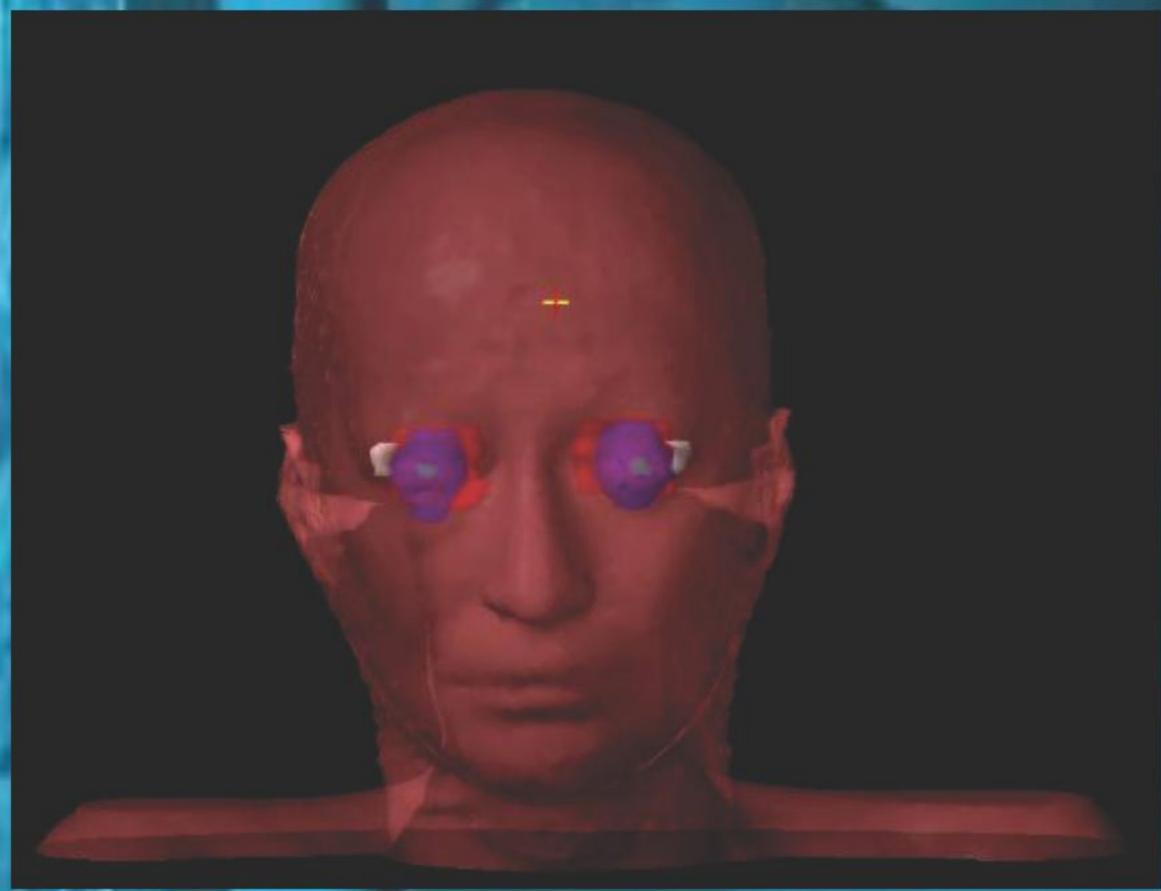


Image 2. A 3D-conformal treatment planning

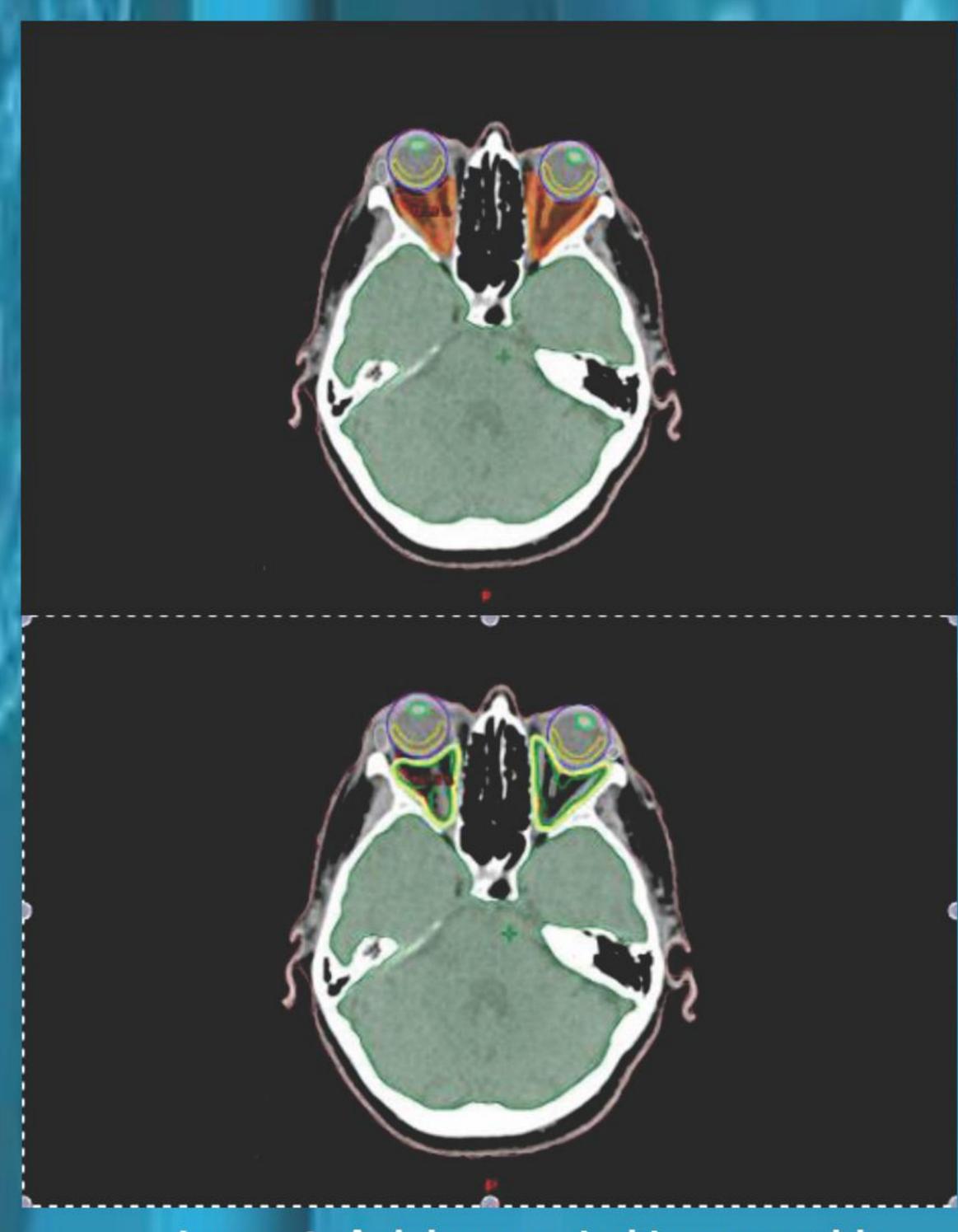


Image 3. Axial computed tomographic (CT) image showing the clinical target volume

