ROSACEA DURING FINGOLIMOD THERAPY IN MULTIPLE SCLEROSIS: A CASE SERIES

1)Brusco S. 2)Bertini M. 3)Rafaniello C. 4)Bisecco A. 5)Gallo A. 6)Capuano A.

Università degli Studi della Campania "Luigi Vanvitelli"

Introduction: Rosacea is a chronic inflammatory skin disease of adulthood with a predilection for highly visible areas of skin, such as face. It is characterized by flushing, redness, pimples, pustules and dilated blood vessels. Previous studies on rosacea suggested a contribution of the immune system in all subtypes of rosacea. T-cell response is dominated by Th1/Th17-polarized immune cells, as demonstrated by significant upregulation of IFN-γ or IL-17.

Few studies have explored the clinical relationship between rosacea and autoimmune disorders, such as celiac disease, rheumatoid arthritis and Multiple Sclerosis (MS), especially in Scandinavian women. The risk to develop rosacea in MS Mediterranean patients is not well demonstrated in literature.

We describe two cases of patients with diagnosis of Relapsing-Remitting Multiple Sclerosis who experienced rosacea during the treatment with fingolimod. Even though cutaneous adverse events are commonly related to fingolimod therapy, no cases of rosacea have been reported in literature.

Objectives and methods: In an attempt to describe the rosacea events associated with fingolimod treatment in a real-life setting, we described two cases of rosacea that occurred in two Caucasian patients. Data obtained from the mentioned cases and from literature review and studies did not provide adequate results to clarify the correlation between fingolimod treatment and the appearance of rosacea. By analysing data in the Italian Network of Pharmacovigilance no other cases relating rosacea and fingolimod have been reported.

Materials: A 48 years old caucasian woman with a 36-year history of Relapsing Remitting Multiple Sclerosis. Over the years, MS worsened with progression of disability characterized by significant clinical and radiological activities requiring several therapeutic changes.

On April 10th 2014 she started the therapy with fingolimod. After the first dose, patient reported burning on right face, skin rash, characterized by persistent redness with transient bumps and pimples, and ear pain. Given the worsening of skin lesions, she went to dermatologist. She was diagnosed with rosacea. Therapy with fingolimod was discontinued and doxiciclin was prescribed. After 10 days, the patient achieved a complete resolution of the adverse drug reaction.

The second case concerns a 27 years old Caucasian male diagnosed with MS at age of 22.

When he started therapy with dimethylfumarate, stopped on June 2016 due to the occurrence of heartburn and flushing of the face. On October 2016, patient began treatment with fingolimod, but after one week of the therapy starting date he reported blush and flush. The redness slowly spread beyond the nose and cheeks, to the chin, the forehead and the scalp. Small spots and papules appeared on his face, becoming ruddier and more persistent. On December 2016,

dermatologist made diagnosis of rosacea. Actually, rosacea is persisting with clinical improvement after treatment with dermatological ichthyol and zinc oxide.

Conclusion:

Although fingolimod represents nowadays one of the mainstay of MS pharmacological treatments, its safety profile is not completely known. It is important to follow patients in the long period in order to observe a possible relapse of rosacea or the complete resolution. Further studies are required to confirm the role of fingolimod inducing rosacea and any other possible skin toxicity. A possible mechanism explaining the onset of rosacea in our patients could be related to immunomodulatory effects of fingolimod which may have contributed to unmask rosacea in patients with underlying predisposition.