

Predictors of Myositis Treatments Received and Associated Treatment

...from "MYOVISION," a TMA-sponsored national registry of myositis patients. This was presented at the 2014 American College of Rheumatologists annual meeting.

Authors: Abdullah Faiq, Payam Noroozi Farhadie, Frederick W. Miller, Nastaran Byatt and Lisa G. Rider of the Environmental Autoimmunity Group, NIEHS, NIH, Bethesda, MD; Jesse Wilkerson, Social and Scientific Systems, Inc., Research Triangle Park, NC; Anna Jansen, NIEHS/EAG Bethesda, MD; Richard Morris and Kathryn Rose of Social and Scientific Systems, Inc, Durham, NC; Lukasz Itert, Anne Johnson and Edward Giannini of Cincinnati Children's Hospital Medical Center, Cincinnati, OH; Christine Parks, NIEHS, NIH, Research Triangle Park, NC; Hermine I. Brunner, PRCSG, Cincinnati, OH; Bob Goldberg, The Myositis Association, Alexandria, VA.

Background/Purpose: Little is known about medications received for myositis and patients' responses to therapies. We present information on self-reported myositis therapy use and responses from a national patient registry.

Methods: MYOVISION consists of 1796 patients who met probable or definite Bohan and Peter criteria for DM/PM (708 DM, 483 PM, 139 JDM) or possible Griggs criteria for IBM (466 IBM) with a median diagnosis date of March 2002. Enrolled patients were queried about myositis treatments received and treatment effectiveness. Logistic regression modeling, using a backwards elimination approach, was used to determine demographic and clinical covariates; a significance level of 0.1 was required to retain variables in the model.

Results: Most DM, PM and JDM patients reported receiving prednisone (96–98%) and methotrexate (MTX) (70–84%). These treatments were reported less commonly in IBM patients (54% and 28% respectively). Use of azathioprine (41%, 47%) and rituximab (ritux) (14%, 16%) were reported more frequently in DM and PM, in contrast to IBM and JDM (11%, 15% and 9%, 10%, respectively).

JDM patients reported receiving hydroxychloroquine (60%), IV methylprednisolone (54%), IVIG (48%), and cyclosporine (19%) more frequently than other subgroups (2–10% for all). Overall, ritux was the most common biologic therapy (13%), and anti-TNFs were received by 10% of patients.

Factors associated with MTX treatment among DM, PM and IBM patients included younger age, geographic region, absence of lung disease, and type of treating physician (rheumatologist). Younger age, SES, and being treated by a neurologist were factors associated with receipt of IVIG in DM and PM, and presence of dysphagia, fever, and lung disease were additional factors for DM.

Overall, prednisone was reported to be the most helpful medication (39%), followed by IVIG (35%), mycophenolate mofetil (31%) and ritux (24%). Some patients (17%) did not find any treatments helpful, and 46% of these had IBM.

Absence of dysphagia in DM (OR 0.66), presence of fever in IBM (OR 5.66), and fewer myositis therapies (OR 0.68 – 0.76) were factors associated with a response to prednisone in DM, PM and JDM. Absence of an overlapping autoimmune disease in PM (OR 0.35) and fewer myositis therapies in DM (OR 0.67) were associated with response to IVIG. IBM patients reported physical therapy as the most effective treatment (38%). Older age (OR 1.03), overlapping autoimmune diseases (OR 2.6), absence of fever (OR 0.13), lung disease (OR 2.1) and receipt of fewer myositis therapies (OR 0.48) predicted a positive response to physical therapy in IBM.

Conclusion: Prednisone and MTX are the most frequently prescribed medications in DM, PM, IBM and JDM. Patients vary substantially in their assessment of the effectiveness of these and other treatment approaches.