Myositis and the risk of infection

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Disclosures

Dr. Dimachkie is on the speaker's bureau or is a consultant for Baxalta, Catalyst, CSL Behring, Mallinckrodt, Novartis and NuFactor.

He has received grants from Alexion, Biomarin, Catalyst, CSL-Behring, FDA/OPD, GSK, MDA, NIH, Novartis, Orphazyme and TMA.

Let me get to know you

Raise your hand if you have:

- A. Polymyositis (PM)
- B. Dermatomyositis (DM)
- C. Necrotizing Autoimmune Myopathy (NAM)
- D. Inclusion Body Myositis (IBM)
- E. None of the Above!

Drug Therapy For PM, DM & NAM

- 1st Line
 - Prednisone
 - IV methylprednisolone
- 2nd Line
 - Methotrexate
 - Azathioprine*
 - IVIG*
 - Mycophenolate mofetil

Which of these drugs suppress your immune system?

Arthritis & Rh.

- 3rd Line
 - Rituximab*(Oddis)
 - Cyclophosphamide
 - Etanercept* (Amato)
 - Tacrolimus (Oddis)
 - Cyclosporine
 - _ACTH gel
- 4th Line / Experimental
 - Chlorambucil
 - ? Tocilizumab
 - ?IMO-8400
 - ?Abatacept

*RCT

Arthritis & Rheumatism 2012; Arthritis Care Res 2010;62(9):1328-34 MSG. Ann Neurol 2011;70(3):427-36

Prior to starting immunosuppressive drugs, you should get tested with:

- A. PPD skin test
- B. Quantiferon to test
- C. A or B
- D. None of the above

Raise your hand if you have had this year:

- A. Only one infection
- B. Multiple infections
- C. No infections

Those who had an infection this year, raise your hand if you have had this year at least:

- A. A respiratory infection
- B. Urinary tract infection
- C. Gastrointestinal infection
- D. Other infectious?

If you have an infection and are taking multiple immunosuppressive drugs, the type of infection you are at risk of is:

- A. A regular cold or UTI
- B. Opportunistic infections
- C. Both A and C

Opportunistic infection: An infection that occurs because of a weakened immune system

If you have an infection and are taking an immunosuppressive drug, the result is that:

- A. Your body can normally fight the infection
- B. Your body can fight the infection even better
- C. Your body is weakened at fighting infections

If you have an infection and are taking an immunosuppressive drug, the result is that:

- A. You will have a <u>higher</u> body temperature compared to someone else not taking these drugs
- B. You will have a <u>lower</u> body temperature compared to someone else not taking these drugs
- C. You will have the <u>same</u> body temperature compared to someone else not taking these drugs

When taking an immunosuppressive drug, reasons for susceptibility to infections is / are:

- A. Lower white blood cells
- B. Lower neutrophil count
- C. Lower lymphocyte count
- D. Impaired antibody production
- E. All of the above

If you have an infection, the best approach is:

- A. Ignore it
- B. Say a prayer
- C. Practice yoga
- D. Seek the help of your primary care doctor in a week or 2
- E. Seek the help of your primary care doctor asap

If you have an infection and are taking multiple immunosuppressive drugs, infection:

- A. Is never a serious problem
- B. May be a serious problem
- C. Always is a serious problem



ScienceDirect

www.elsevier.com/locate/nmd

Neuromuscular Disorders ■■ (2015) ■■-■■

Disease course and therapeutic approach in dermatomyositis: A four-center retrospective study of 100 patients

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Received 12 March 2015; received in revised form 16 April 2015; accepted 24 April 2015

Abstract

Dermatomyositis is a life-altering inflammatory disorder of skin and muscle. Details regarding the natural course of this disorder, the effects of specific therapies on its progression, and the optimal therapeutic dosage and duration of prednisone are limited. We performed a retrospective medical record review of dermatomyositis patients at four medical centers. All patients were over the age of 21 and had a clinical diagnosis of dermatomyositis with pathological confirmation. We reviewed average muscle strength, corticosteroid use, creatine kinase levels, and supplemental immunosuppressant use during the 36-month period following each patient's initial assessment. One hundred patients participated with an average age of 50.1 years. Average muscle strength improved and prednisone requirements lessened six months after initial assessment. There was no difference in the mean change in muscle strength or cumulative corticosteroid use over 36 months among those initially treated with methotrexate, mycophenolate mofetil, pulse IVIG, or azathioprine. There was a 5% mortality rate in dermatomyositis patients due to infections. Treated dermatomyositis patients demonstrate the most significant improvement in strength during the first six-to-twelve months following their initial clinical assessment. Additional prospective studies are needed to determine the relative benefit of select immunosuppressant agents in preserving strength and reducing corticosteroid use in dermatomyositis.

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Keywords: Dermatomyositis; Comparative effectiveness; Immunosuppression; Inflammatory myopathies

The true statement about immunization in the setting of immune system suppression:

- A. All vaccines are ok
- B. Only live vaccines are ok
- C. Only live attenuated vaccine are ok
- D. Only inactivated vaccines are ok

Which are true. Inactivated vaccines include the:

- A. Shingles vaccine
- B. Flu shot
- C. Nasal Flu vaccine
- D. Pneumococcal vaccine
- E. Meningococcus vaccine
- F. Pertussis vaccine

Take home messages

- Be hypervigilant about symptoms of infection
- Promptly notify your primary care doctor
- Overtreat infections rather than undertreat in the setting of an immunosuppressive drug
- Immunization is great idea ... as long as you do not take any live or live attenuated vaccines
- Questions / Comments?