Myositis and the risk of infection

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Disclosures

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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

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<tbody>
<tr>
<td>Prednisone</td>
<td>Methotrexate</td>
<td>Rituximab* (Oddis)</td>
<td>Chlorambucil</td>
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<td>IV methylprednisolone</td>
<td>Azathioprine*</td>
<td>Cyclophosphamide</td>
<td>? Tocilizumab</td>
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<td>IVIG*</td>
<td>Etanercept* (Amato)</td>
<td>? IMO-8400</td>
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<td></td>
<td>Mycophenolate mofetil</td>
<td>Tacrolimus (Oddis)</td>
<td>? Abatacept*</td>
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<td>Cyclosporine</td>
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Which of these drugs suppress your immune system?

*RCT

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

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

A. PPD skin test
B. Quantiferon tb test
C. A or B
D. None of the above
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Raise your hand if you have had this year:
A. Only one infection
B. Multiple infections
C. No infections
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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?
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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
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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
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If you have an infection and are taking an immunosuppressive drug, the result is that:

A. You will have a **higher** body temperature compared to someone else not taking these drugs

B. You will have a **lower** body temperature compared to someone else not taking these drugs

C. You will have the **same** body temperature compared to someone else not taking these drugs
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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
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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
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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
Disease course and therapeutic approach in dermatomyositis: A four-center retrospective study of 100 patients

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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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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
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Which are true. Inactivated vaccines include the:

A. Shingles vaccine
B. Flu shot
C. Nasal Flu vaccine
D. Pneumococcal vaccine
E. Meningocococcus 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?