



Prednisone and Corticosteroids

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Patient Education Webinar
Back to Basics
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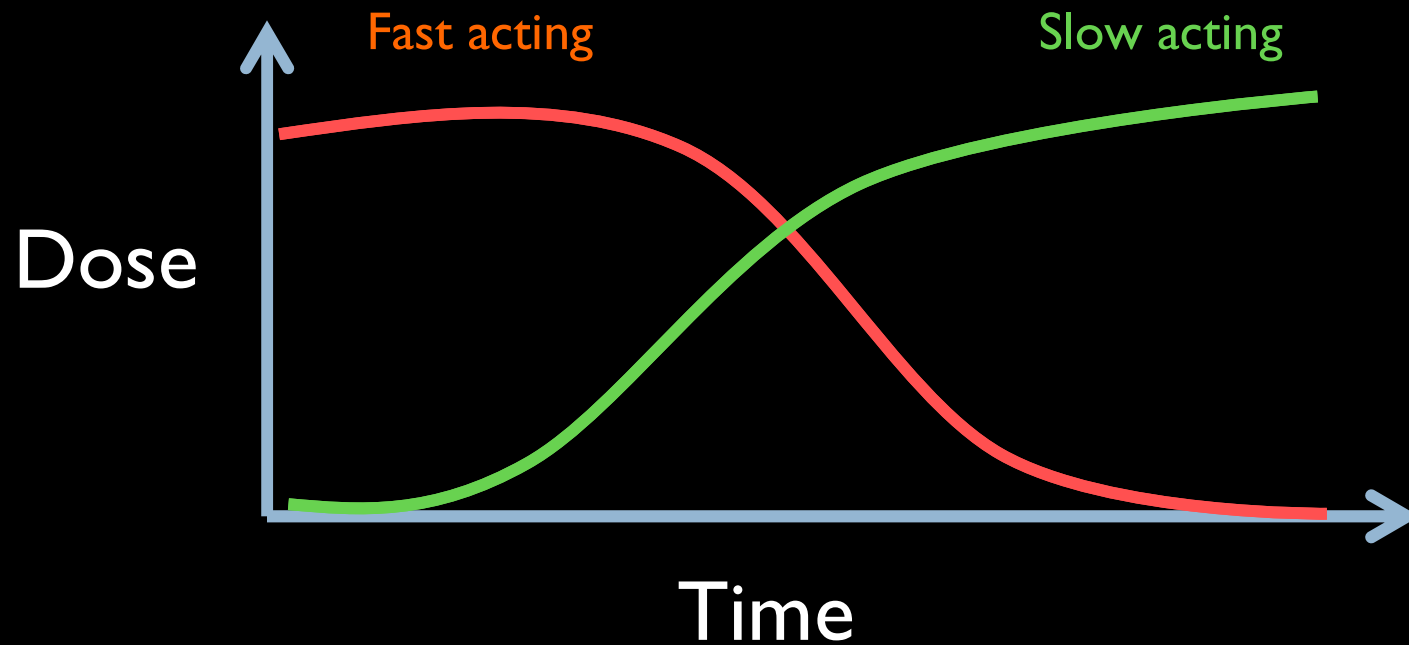
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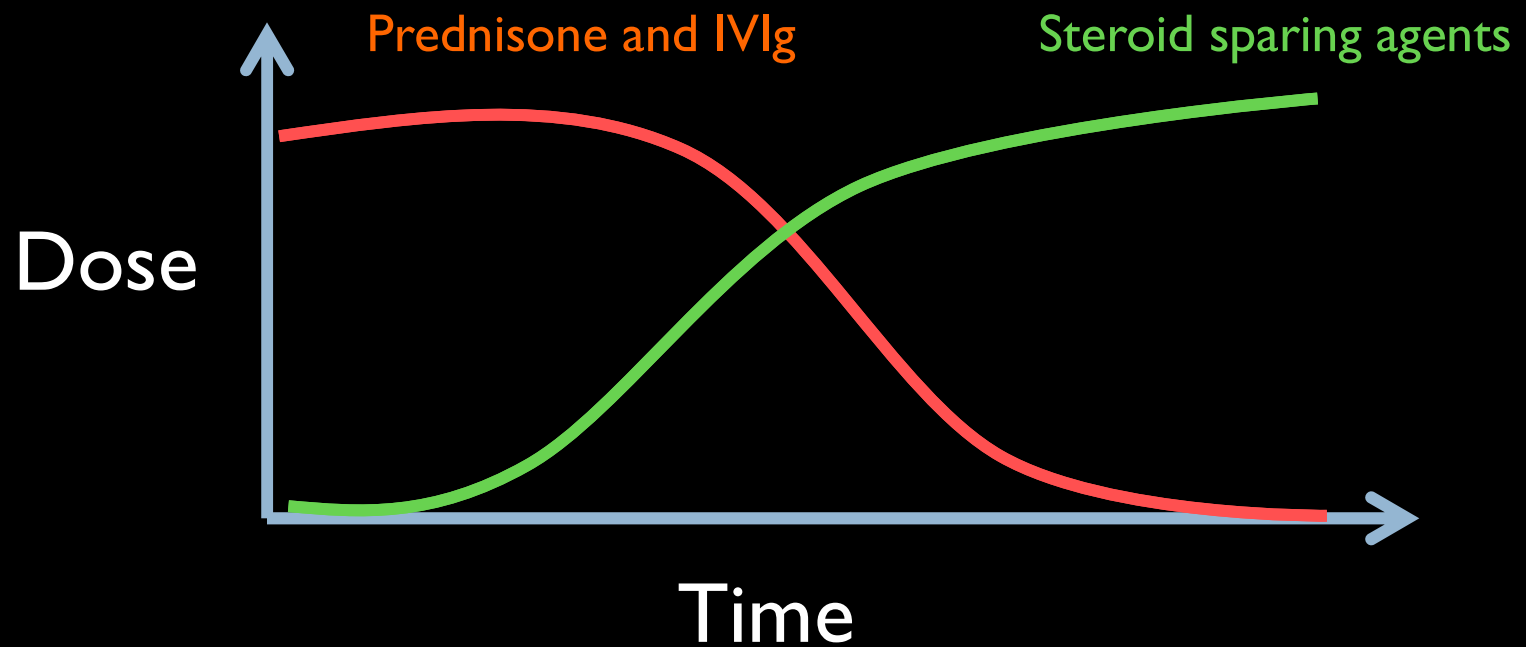
A time before steroids

- Pemphigus and pemphigoid were often fatal before steroids were available
- An amazing and horrible medication that is saving your life

Approach to treatment



Approach to treatment





Benefits vs risk...

- Benefit - Works quickly, cheap and easy to take
- Risks
 - Short term side effects – insomnia, irritability, elevated blood glucose, increased blood pressure, increased appetite, water retention
 - Long term side effects – diabetes, decreased bone density, cataracts, glaucoma, weight gain, GI bleed
- The difficulty nature of the first visit



Prednisone basics

- Dose is based on body weight of 1-2mg/kg/day
- An average person is ~60kg (132 lb), so 60mg a day is an average starting dose
- Prednisone is a general immunosuppressive and anti-inflammatory medication
- Dosing is usually oral (other options include subcutaneous, IV or intralesional)



Prednisone basics

- Mimics cortisol (made by your adrenal glands) – critical to life!!!
- Take first thing in the morning ideally
- The dose that is roughly equal to the physiologic level of cortisol is about 5mg a day
- Why we taper...to wake up those adrenal glands!



Strategies to minimize risk

- Lowest dose and duration possible
- Identify risk of side effects
- Consider preventative measures
- The only bad plan is prednisone monotherapy forever (there should always be a plan to get you off high dose systemic steroids)



Diabetes plus

- Risks
 - Blood sugars will become elevated in diabetics
 - In patients that have a predisposition to diabetes, prednisone can unmask it
 - High blood pressure
- Additional risk factors – history of these diseases
- Prevention
 - Coordination with primary doctor
 - Home monitoring



Infections

- Risks
 - Increased risk of infection
- Additional risk factors – history of hepatitis B or C, HIV, tuberculosis, multiple immunosuppressive medications
- Prevention
 - Using antibiotics to prevent infection, often not done due to low rate of these infections and the risk of the antibiotics
- COVID-19 – less than 10mg is best (don't taper without discussing with your doctor!!)



Bone health

- Risks
 - Osteopenia and osteoporosis
 - Fractures - compression fractures of the spine
 - Avascular necrosis
- Additional risk factors – thin, elderly, white women
- Prevention
 - Yearly bone scans – DEXA scan
 - Calcium 1200mg and Vitamin D 800 IU daily
 - Bisphosphonate – risk of osteonecrosis



Gastrointestinal

- Risks
 - Reflux
 - Gastric ulcers
- Additional risk factors – NSAID use, smoking, H. pylori, alcohol use, history of gastric ulcers, bisphosphonates, over 65 years old
- Prevention
 - Proton pump inhibitors – omeprazole (Prilosec), lansoprazole (Prevacid), others – risk of nausea/vomiting, headache, dementia?



Eye issues

- Risks
 - Cataracts
 - Glaucoma
- Additional risk factors – history of cataracts or glaucoma
- Prevention
 - Consider baseline eye exam and yearly eye exams



Mood and cognition

- Risks
 - Irritability, insomnia, mania, psychosis
 - Brain fog (poor thinking)
- Additional risk factors- history of anxiety, depression or underlying mental health disorder, older age
- Prevention
 - Close monitoring



Other

- Muscle weakness
- Acne and folliculitis
- Weight gain and water retention
- Hair loss

Vaccines

- Risks
 - Prednisone may limit your ability to fully respond to vaccines (> 20mg for > 2 weeks)
- Additional risk factors – other immunosuppressive medications
- Prevention
 - Take all vaccines prior to starting – easier said than done, wait 2-3 weeks after vaccine to start prednisone
 - COVID-19 vaccine – excluded from trials, reduce prednisone *if possible*, consider spike protein antibody testing 3-4 weeks after your second dose to assess antibody response



Learning more

- Glucocorticoid toxicity index (GTI)
 - Combination of patient and doctor questions that capture side effects from steroids
- Which side effects to be most worried about?
 - Your personal risk factors
 - How common and how serious these risks are



Approach to treatment

How can we tell if the treatment is working?

- Fewer to no new lesions
- Steroid sparing – can we taper the prednisone and the disease stays quiet?



Approach to treatment

When to switch treatments?

- Intolerable side effects
- Serious side effect
- The treatment should not be worse than the disease

Acknowledgements

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