Intravenous methylprednisolone for thyroid eye disease

What is Methylprednisolone?
Methylprednisolone is a steroid medication belonging to a group of drugs called corticosteroids. It is similar to the steroid hormones produced by your own body, although the doses we prescribe are much higher. It is used to successfully treat a wide variety of inflammatory conditions including arthritis, autoimmune conditions and multiple sclerosis. It is also a treatment option for certain patients with thyroid eye disease.

Why am I receiving Methylprednisolone?
Steroids, such as methylprednisolone, work by reducing inflammation in the body. If your thyroid eye disease is in an acute phase and is threatening your eyesight, or causing troublesome double vision during the inflammatory phase, it will help to reduce the degree of inflammation around the eye. It can also be used if the active inflammatory symptoms are severely affecting the quality of your life.

Before receiving your treatment.
Prior to receiving the first dose of methylprednisolone you will undergo a thorough assessment. This is to ensure that it is safe for you to have the treatment. This will include a medical questionnaire, a urine test, ECG and blood tests. Further urine and blood tests will be required before each subsequent dose.

How will it be administered?
Methylprednisolone is given intravenously through a small cannula which will be placed into a vein in the back of your hand. It is infused over 30 to 60 minutes, during which time you will be closely monitored for any side effects.

How long will the treatment last?
To limit the risk of side effects we give up to a total of 8 grams of methylprednisolone. This is based on published studies for thyroid eye disease, and is usually given in a dose of 500 to 1000 mgs at weekly intervals. The dose is decided on the day by the doctor and is dependent on the severity of your symptoms and your response to treatment so far.

What side effects may I expect?
As this treatment is given over a relatively short period of time most patients do not experience any significant side effects. However, common short-term side effects do occur, and include:
- Metallic taste in the mouth
- Agitation
- Headaches
- Flushing of the face and neck
- Insomnia or poor sleep
- Increased appetite
- Heartburn or indigestion

Rarely, intravenous methylprednisolone can cause liver problems, cataracts, stomach ulcers, rash or puffiness of the face or legs.

If you develop a rash, itchiness or swelling to the face or tongue you should immediately contact your GP or go to Accident and Emergency.

What are the expected benefits?
You should expect to see an improvement in the swelling and redness around and across the front of your eyes within days to weeks. You also usually get an improvement in the way the eye muscles work which can mean that the double vision you may be experiencing gets better.

The degree to which the exophthalmos (or ‘bulging’) improves can be variable and depends on the duration of disease. Although the treatment described above has a positive effect in up to 80% of patients (in terms of reducing inflammation), the effect – in terms of the position of the eyes - less predictable, and patients may still require surgery both for exophthalmos, and for double vision, after the acute inflammatory phase, this typically several months later.

Will this affect any other diseases I’m being treated for?
Patients with diabetes may experience a rise in their blood sugar readings, particularly in the first 24 hours after the infusion. We will monitor your blood sugar levels whilst you are in hospital, but it would be advisable to monitor your own blood sugars more regularly at home during the course of treatment. You should also speak with your diabetes doctor or nurse specialist and tell them that you are receiving steroid treatment. They can advise about altering your diabetes medication if necessary.

Large doses of methylprednisolone can increase your blood pressure and we will monitor this closely whilst you are in hospital. Certain drugs used to treat high blood pressure can lower the potassium levels in the blood, especially if taken at the same time as methylprednisolone. We will ask you for a list of all your regular medication and monitor your potassium levels during the course of treatment. If your medication changes, please do let us know when you attend for your next infusion.

Will this treatment affect the way my thyroid works?
It is not expected that the methylprednisolone will affect your thyroid, but it is important that your thyroid function remains stable throughout the treatment. Both an underactive and an overactive thyroid can worsen the symptoms of thyroid eye disease. You will have a blood test each time you attend for your methylprednisolone. These results will be discussed with an endocrinologist if necessary.
Smoking
People with thyroid eye disease who smoke have much worse symptoms, and are very much less likely to respond to medical treatment.

We would therefore strongly advise you to stop smoking completely. We are aware that this is not an easy thing to do and therefore would suggest that you contact a smoking cessation service. Please do not hesitate to ask us for more information on quitting smoking.

Is there anything else I can do to reduce my symptoms?
Eye drops and ointments can be used during the day and at night to relieve grittiness, watering and pain across the front of the eye. Wearing glasses or sunglasses can also reduce watering.

Prisms can be useful in alleviating the symptoms associated with double vision. Sleeping propped up can help reduce puffiness around the eyes.

I am concerned about the way I look
We are aware that the change in your appearance with thyroid eye disease can be very distressing and the methylprednisolone is unlikely to rapidly improve all of the changes. If you are struggling with how you look now or with people’s reaction to your appearance please talk to us for more information and help.

Useful websites

www.tedct.co.uk
This website provides information and support to those affected by thyroid eye disease with input from medical staff and patients.

www.btf-thyroid.org
This website provides more general information about thyroid disorders and their complications.

www.moorfields.nhs.uk
This website provides detailed information about our Trust, the services we provide and eye conditions we treat.

http://www.mrverity.com/areas-of-expertise/thyroid-disease/
This website provides further information on Thyroid eye disease and its treatment

Useful Contact Numbers

London Claremont Clinic: +44 (0) 203 7004 042

Smokefree Helpline 0300 123 1044