Professor Patel Q&A

Professor Vinod Patel is Principal Clinical Teaching fellow, Lead for Clinical Skills at Warwick Medical School, The University of Warwick and Hon Consultant in Endocrinology and Diabetes, Acute Medicine and Medical Obstetrics at George Eliot Hospital NHS Trust, Nuneaton. He has been seeing ME patient for many years.

Q1. I'm interested in finding out about endocrinology in general and the potential role of an endocrinologist in my care. So, I'd like to ask - What is an endocrinologist?
An endocrinologist is someone who specialises in looking after hormones; their normal function and particularly disease states. There are many hormonal conditions such as Addison's Disease, underactive or overactive Thyroid that we generally manage well, and most patients would benefit from such interventions, management and follow-up.

What is the role of an endocrinologist in meeting the health care needs of ME patients?
This has not been clearly defined when it comes to meeting the healthcare needs of ME Patients.
ME has a very complex underlying path of physiology, which means essentially that we do not know exactly what causes it. There is no specific answer such as, for example, an under-active Thyroid state is caused by not enough Thyroid Hormone. In most cases giving Thyroid Hormone will actually help that patient to a higher level.
The main role that an endocrinologist has is in thinking about Endocrine conditions together with some background knowledge on management of energy, sleep cycles and pain relief.
In the main, our clinic was set up to rule out specific Endocrine conditions which we knew were being missed in patients with ME.

How do I find out if an endocrinologist may be able to help me? Generally speaking, what can be addressed by my GP and when is a referral to endocrinology more appropriate?
A lot of GPs nowadays do do a lot of general Endocrinology and in most cases would have checked TFT, possibly vitamin D levels before referring on to us. Endocrinologists have specific knowledge in abnormalities of the Adrenal Gland which are extremely important to address, as missing out on diagnosis of these conditions can potentially be life-threatening.
I cannot travel to appointments - can an endocrinologist advise remotely e.g. through liaison with my GP practice and/or reviewing my medical notes?
Certainly an Endocrinologist can advise your GP through telephone consultation and that is perfectly acceptable.

Q2. I've heard that cortisol plays an important role in regulating the endocrine system. What is the function of cortisol?
Why does cortisol level normally peak at 9 AM?
Values peak at 9am because that is the time we need our glucose levels to start increasing in the bloodstream to get us ready for the activities of the day. The optimal activity for most human beings is usually around 8am, 9am and then 2pm, 3pm. This is just a natural pattern that has been established by nature and therefore we try to measure the Cortisol Level in the morning because that is what all the International Standards are based on.

What happens if cortisol doesn't peak in this way and how does it affect the person's health?
If the Cortisol does not peak in this way it could mean a poor sleep pattern so for example, if somebody is extremely sleepy and has not slept at all overnight, it is quite likely that the Cortisol Level would be very low. We do not usually treat low Cortisol Levels in the morning unless there is clear evidence that the Adrenal Gland is not working properly after stimulating it (Synacthen Test).

What constitutes a healthy cortisol level in blood test results and what constitutes an unhealthy cortisol level?

This would normally be around 200 and 500 in the mornings and an unhealthy value would be less than 150 certainly.

If the body doesn't make sufficient cortisol how does this affect physiological response to and ability to cope with stressful situations?
The body cannot manage in relation to all the usual stresses and strains of life and this includes all illnesses but also mental and physical stress and recovery from interventions such as surgery.

If cortisol levels are found to be low is it treatable and if so, what would the treatment be?
Treatment is relatively straightforward with Hydrocortisone which is replacing the actual amount of a Steroid Hormone that your body would make on a normal day. As such there are usually no specific Steroid side-effects as we are only giving you back the Steroid that your body needs.

Q3 My GP wants to draw a sample of blood for cortisol testing. However, I am severely needle phobic. Is there any other way that my cortisol level can be checked? If so, how reliable would the results be?
We can actually do the cortisol testing in people who are severely needle phobic by taking a capillary sample that this would not be as good as a venous sample. I have no experience of Saliva re-Cortisol testing but some Private Units are certainly using this. In my mind this is not as accurate as a blood test.

Q4. What is a synacthen test?
This measures the ability of a person's Adrenal Gland to react to stimulus. We collect a Cortisol sample between 8am and 9:30am, we then give Synacthen which should stimulate the Adrenal Gland. We then do another measurement of cortisol 30 minutes after the injection. This helps us to decide whether there is a normal rise in Cortisol due to the Synacthen and if there is not it would suggest that the Adrenal Gland Cortisol production is impaired.

Q5. I'm prescribed steroids long-term to address low cortisol. Am I at increased risk of osteoporosis?
As long as small normal values of Steroids are used then there is no increased risk of Osteoporosis.

Q6. I have read patients with ME can suffer from hypoglycaemia and I would like to ask: -what is hypoglycaemia?
This is a low Glucose state.

What are the symptoms?
Feeling sweaty, tired, shaking, trembling, nervous, hungry and sometimes the heart can speed up as well.

What is the best way to manage it?
Have a small amount of sugar for example, five or six Jellybeans or a cup of Lucozade. This corrects the low Glucose quickly but will then need to be followed up by more slowly absorbed foods such as Digestive Biscuits or a Sandwich. If people do have hypoglycaemia they should seek advice from GPs and they will refer on to Secondary Care Services if needed.

Q7. I have severe ME and normally I sleep a lot. I crave foods that are high in sugar and high in fat. However, periodically I go through periods of insomnia where I sleep only two hours a night. Oddly, when this happens, I stop craving the unhealthy foods. Can you tell me why this happens?
Craving for unhealthy foods is due to hunger patterns in the main. We generally advise the patient to have a Low Glycaemic Index Diet which means high in starchy carbohydrates such as Lentils, Brown Bread, Wholemeal Grains. These are slowly absorbed and therefore less likely to cause a substantial drop in Glucose Levels which then stimulate cravings for foods that are high in fat and sugar. The reason why you're craving is slightly better possibly when you sleep only two hours a night is because your Cortisol and Adrenal Levels are high all the time and therefore your body is mobilising Glucose better.

Q8. I am not diabetic, but I want to keep my blood sugar levels stable. I am now finding it difficult

to eat: I become very fatigued and am struggling to chew. Can you recommend foods which are easy to eat and keep blood sugars stable?
In terms of which foods are easier to chew, clearly foods like pasta and bread will be easy. Peas Pasta has a higher amount of protein and is therefore better overall. High quality bread will have the right amount of protein and carbohydrate and a small amount of fat. Hopefully using a background soup would make the food softer and easier to chew. You would need to seek advice from a dietician in relation to this.

Q9. Is there a drug which may possibly decrease the strength of a constant, jerking internal muscle tremor? The tremor increases with any neurological input and is, I have been told, a symptom of a dysfunctional nervous system. I would need a very low dose as I am sensitive to most medication.
Decreasing the strength of a constant jerking internal muscle tremor, I think the best advice would be from a Neurologist. As an emergency treatment sometimes we do use agents such as Clonazepam but really this has now become a specialist area and in most cases I would be happier if there was a Neurological opinion as well. I do agree that low doses are often more effective however.

Q10. I experience an extreme tightening in the head/brain, ringing ears (higher the pitch, the tighter the head) which gets worse upon minor cognitive exertion and physical movement. Would a vasodilator e.g. Nimodipine help?
With respect to the above symptoms, and whether a vasodilator such as Nimodipine would help, nimodipine is a vasodilator which means it dilates blood vessels and can help some patients. If you think this would help, it would be worth getting a clinician to supervise you through a trial of this. The normal dose would be 30 mg or 50 mg twice a day for a period of 14 days to see if there is benefit. It should only be repeated if there is distinct benefit.

We would like to thank Professor Patel for this Q&A, completed when the NHS was experiencing unprecedented times.