

13 June 2009,
Ataxia UK Regional Conference, Exeter

Doctors' questions & answers

Dr Andrea Nemeth, a clinical geneticist from Churchill Hospital in Oxford, Dr Alastair Wilkins, a neurologist from Frenchay Hospital in Bristol and Dr Liz Harrison, Ataxia UK's Chair and retired GP, formed the Panel. Questions were received in advance as well as from the floor and were relayed by the Chair, Sue Millman.

Symptoms and their management

Question 1: I am 58 and have Cerebellar ataxia (CA). Added to the unsteadiness and poor balance is dizziness when turning my head. I am not sure that this is a symptom of CA.

Alastair Wilkins: Unsteadiness and poor balance are quite common symptoms that we see, particularly when you turn your head. It often suggests a problem with the vestibular system. The vestibular system is encased in the inner ear. It is a mechanism that very finely senses where your head is, so if you turn your head, a message gets sent to your brain to tell your brain that you're moving your head. The vestibular system can be affected in all sorts of conditions. It may be related to cerebellar ataxia as there are very close connections between the vestibular system and the cerebellum. However, there are other conditions that affect the vestibular system, including a very common condition called benign positional vertigo. This is common in the general population and there are certain physiotherapy exercises which can be done to help.

If you have had ataxia for a number of years and the unsteadiness and poor balance is something which has just come on out of the blue, this suggests it may be an unrelated problem with the vestibular system. It is probably therefore worthwhile discussing the problem with your General Practitioner, who may recommend exercises which you can do, which often cure the problem.

Question 2: Why do people with ataxia get vertigo?

Alastair Wilkins: Vertigo means lots of different things to different people. It is a symptom where it feels as if the world is spinning, or it can be used synonymously with dizziness. Again, the vestibular system of the inner ear is connected very closely to the cerebellum, so [vertigo] can be a common problem in people with ataxia.

Question 3: My friend has cerebellar ataxia and suffers from headaches almost every night, which keep him awake and don't help how he feels during the day. The doctor recommended paracetamol for pain relief, but this is not helping. Are there any other painkillers the doctor can give him for his problem, or does he just have to suffer every night?

Alastair Wilkins: Headache is a very common problem and as a neurologist I spend a lot of time seeing this complaint. I suggest that this person probably should discuss their condition with their neurologist, if they have one. It's important to find out what the cause of the headaches is. There are lots of different causes of headaches and there are lots of different treatments and I would be hopeful that a neurologist would be able to help with this. It's important to discuss this, in order to have a proper diagnosis and then a treatment plan. The headaches are probably not to do with the ataxia and people who suffer from them shouldn't just put up with them.

Question 4: Is there any connection between ataxia and very vivid nightmares and sleep disturbance?

Alastair Wilkins: Sleep disturbance is very common in the population at large. There are many different causes, from physical to psychological and it's important to explore the reasons for the sleep disturbance. For example depression and pain are common causes of sleep disturbance. Vivid nightmares can be found in related conditions but I'm not particularly aware of them being common in pure ataxias. So when thinking about sleep troubles it's important to not just put it down to the ataxia, but to try and explore some of the reasons for it. The problems may be due to pain, depression, or other reasons, which can sometimes be treated and remedied.

Liz Harrison: I don't know of any studies that have been done, but as a personal observation, I think nightmares can be caused by being too hot at night, so don't wrap up too much.

Question 5: What effect does ataxia have on the emotions or temper?

Alastair Wilkins: I think the question is whether it's the ataxia directly, or whether it's the effects of the ataxia that is having these sorts of effects. The part of the brain which is involved with emotions and temper is called the limbic system and this is slightly separate [from the cerebellum]. The limbic system can be affected in some more generalised ataxic conditions, but not necessarily in the more pure ataxias, where we would see ataxia as a

primary symptom. However, people who have ataxia have disabilities and it's very common that these cause problems with emotions and temper as you can imagine. So I think probably for the most part emotional problems are likely to be a secondary consequence of some of the other issues that are associated with ataxia.

Liz Harrison: Ataxia is a symptom of what's going on inside your body and it's not stable condition, so you don't know how you're going to be from one day to the next. Some people find they get worse all of a sudden and that can undermine your self confidence. As well as your experience of ataxia, I think your personality and how you deal with what is happening to you can affect your emotional state and temper too. Ataxia can be terribly frustrating, but if you can come to terms with what's happening to you then the emotional see-saw balances out.

In the case of my family, although my daughter has ataxia, after the diagnosis it was not actually my daughter who got cross. I was the one who spent days cutting hedges with hand shears because I was angry about her loss of function, independence and opportunity. Physical exertion is a good way of dealing with strong feelings but we all have to deal with these things in our own way.

Diagnosis and service provision

Question 6: This is a question from a lady who was diagnosed with cerebellar degeneration in 2002. Her local neurologist said he was 95% certain it was not Multiple Sclerosis, but tests have shown she had cerebellar degeneration. She moved area and in 2004 saw a different neurologist. She passed on Ataxia UK's Guidelines on Best Clinical Practice which this neurologist followed to the letter. However, he hasn't been able to identify the cause of her ataxia. The neurologist is now offering to refer her for a second opinion. She would like to know if it is worth getting a second opinion? Can anything be done differently if we have a second opinion?

Alastair Wilkins: Firstly, the Ataxia UK Guidelines are very good, and very comprehensive and if the neurologist has followed the Guidelines then they have probably exhausted most of the diagnostic possibilities. However a second opinion can be useful on a lot of occasions. It sounds like the neurologist here has offered to refer the person in question to another centre, and it's something we [neurologists] do quite often if we're unsure, or if we think there may be something we're missing. So in that respect it can be useful, but I also think we need to be realistic. If the doctor's already done everything that has been recommended then it's unlikely that any more diagnostic information is going to come, unfortunately. So although it's useful to get another opinion, it's also worthwhile being realistic about what might transpire.

Andrea Nemeth: I think this comes back to the issue of what is the underlying cause? We don't know what the underlying cause is in a number of cases of ataxia, but probably at least 50% of cases are going to be inherited and the younger the age at onset the more likely this is, so the age of the person may be an important consideration. If the age at onset in this

person was 30 then I think you're looking at something that's highly likely to be genetic. Assuming that the neurologist in question has done all the relevant investigations and exhausted all the known causes of the ataxia, then you are looking at something that's much more likely to be genetic in origin. If this is the case it may be worth considering whether further genetic testing on a research basis would be helpful. I am working on a research project which involves genetically testing people with cerebellar ataxia who are under the age of 50, to try to identify those people where an inherited or genetic cause is most likely [see question 8 for details]. So, if somebody like this was under the age of 50 and had a cerebellar ataxia of unknown origin that looked as if it was likely to be genetic, based on the age of onset and perhaps some other clinical features, then they might be eligible for the genetic testing that we're doing at the moment. I would be happy to speak to anyone about that [please contact the Ataxia UK office for Dr Nemeth's contact details].

Question 7: I have had a diagnosis of ataxia for two years. It isn't known what form of ataxia I have. Would it be worthwhile getting a second opinion? Is it likely that by getting a second opinion I would be able to get some form of treatment to slow down the progress of ataxia?

Sue Millman: The general feeling seemed to be that it was a good idea to get a second opinion. However, given that there is no cure for ataxia, does it matter what sort of ataxia someone has? What can be done differently if you know that someone has a different type of ataxia?

Andrea Nemeth: Second opinions can sometimes increase people's confidence in what the original doctor said and that in itself can be quite helpful. I encourage people to get second opinions, although [the quality of advice] is dependent on where you go for the second opinion. However, in the UK there are a number of people who are very interested in ataxia, who see a lot of patients with it, and who have a lot of expertise in it. [Contact the Ataxia UK office for more details]

In terms of getting treatment, to my knowledge, it is true that there are no specific treatments at the moment that have been proven to slow down the progression of any of the types of ataxia that we're talking about [except for example Vitamin E or B12 supplementation in cases where deficiencies of these vitamins cause ataxic symptoms, see question 11]. Nevertheless, many people are very keen to be involved in clinical trials and research treatments and this can be beneficial for them. Also in specialised clinics I think that we are able to provide better service, because the patients are seen and assessed more frequently and there's a better interaction between the clinical staff and the patients. So although there may not be a cure, this does not mean that getting involved in these kinds of clinics cannot be beneficial. At the same time I think we also need to be realistic. I don't think any of us would want to give the impression that in the next few weeks, or few months, or probably even in the next few years that there are going to be treatments that are going to be shown to conclusively slow down progression. We still have a great deal of work to do. But the ground work is being done, and the ground work can only be done if there are populations of patients that we can engage in this type of work and who express an interest in participating.

In summary, do get a second opinion if you're interested in getting one. If you want to try and find a centre which has a specific interest and expertise, and you're able to travel there, then do that. If you are living in a part of the country where it's more difficult [to access services] then making the effort to visit a specialist centre once or twice a year may be well worth it as well.

Question 8: Why does it take so long to get a genetic test?

[This question was answered by Dr Nemeth's research talk and this answer is a summary of the relevant points from the talk.]

Genetic testing is a hugely important part of diagnosis in ataxia. It can mean a better understanding of a person's condition and more accurate prognosis, it can allow families to make well-informed reproductive decisions and it can help clinicians manage the condition better and explore potentially beneficial treatment options. A conclusive genetic test is therefore important in the understanding and the treatment of a person's ataxia and that is why genetic testing is done. However genetic testing can also be a highly complex business. There are many potential problems that may arise and this can mean that the process of genetic testing can be a lengthy procedure.

Firstly, there is the issue of knowing which genetic test to do. There are many different types of ataxia and many different patterns of inheritance in families. It is important that your particular clinical symptoms and family inheritance patterns are assessed so that you are referred for the correct genetic test(s). If this is not done you may be referred for genetic testing that is not relevant to your condition and this would take up unnecessary time. It's important that you see a doctor with expertise in genetic testing and the ataxias who knows which tests are appropriate for you. It's also important that there is good clinical support available as the results of genetic tests can be complex and they need to be interpreted in the context of each individual and their medical history. It is possible that incorrect interpretation of results could lead to a wrong diagnosis.

Another problem with genetic testing is that it's expensive and, at the moment, only one gene can be tested at a time. This means that rather than performing a large number of genetic tests at once, the tests are done one at a time, which increases the amount of time taken to get a diagnosis.

One more obstacle in the process of genetic testing is that the genetic test for your ataxia may not be available. This could be for one of three reasons. Firstly, the genetic tests that are available are not consistent throughout the UK, meaning that there is an element of a 'postcode lottery' in terms of the tests available. Secondly, the test for the mutation in the gene that causes your ataxia may not be available on the NHS. The genetic tests that are available on the NHS have been specially developed for this purpose and have been proven to be cost-effective (because genetic testing is an expensive procedure it must be shown that there are enough people in the UK with that condition to justify the cost of making the tests available on the NHS). I know that there are some genetic mutations that have been shown to

cause ataxia, but for which no genetic tests are available on the NHS, largely because it is not known how many people in the UK have these mutations and the cost-effectiveness of the tests cannot be shown. Although some researchers may know about tests for these mutations, their labs lack the regulation and clinical support (which is essential for correct interpretation of results) that the NHS accredited centres have and they are therefore not equipped to perform accurate diagnostic testing for patients. Furthermore, it is not possible to go directly to geneticists or researchers and pay privately for genetic tests. Finally, a test for your particular genetic mutation might not be available because the mutation that causes your ataxia has not been discovered yet. New genes are being discovered every year and researchers have not found all the mutations that cause ataxia. This means there will always be some people who will not get a firm diagnosis because their mutation has not been discovered.

Dr Nemeth's research project will address a number of these issues and she is looking for people with undiagnosed ataxia to participate. Her project will use new technology to screen large numbers of genes at once (called high throughput genetic testing). If the technology is successful, it is expected to speed up the diagnostic process and the aim is to implement it at the Oxford Regional Genetics Laboratory. Results from her study will also give more information about the numbers of people with different types of ataxia, which will be useful for developing genetic tests in the future. For details of Dr Nemeth's research project including information about who can take part, please see the 'Taking part in research' page in the 'Research' section of the Ataxia UK website, or contact the office.

Question 9: I live in West Wales, far away from any urban activity, and it seems the further away from any source of medical facility, the services available are intermittent or even non-existent. In my case it was up to me to seek any sort of social interaction or medical services. Is this usually the case when ataxia is diagnosed? Is there a postcode lottery?

Alastair Wilkins: It shouldn't be. We would hope that if you had ataxia you'd be seen by a neurologist and obviously Ataxia UK are working hard to try and get more specialist ataxia clinics going.

Sue Millman: I'm not a scientist or a medic but as Chief Executive of Ataxia UK I can say yes, it can be a bit of a postcode lottery. Ataxia UK is addressing this by creating specialist ataxia clinics, but unfortunately it is always going to leave some people remote from services. We're not going to be able to get them all in your locality. However, we are members of the Neurological Alliance, which is active right across the UK, and presses for improvement in neurological services in general. [The Neurological Alliance aims to ensure high-quality, co-ordinated services for every person diagnosed with a neurological condition]. There are a number of regional Neurological Alliances which people are able to join and which campaign for a better range and quality of services to be supplied right across the neurological spectrum. It's quite possible for you to go along to your local regional Neurological Alliance and join that, and join with us in campaigning for those services.

Declaring Ataxia

Question 10: If ataxia is untreatable are there any advantages to informing the family, e.g. does this have any insurance or other ramifications?

Andrea Nemeth: Yes, it has a number of ramifications, and this comes back to getting adequate genetic counselling. It also depends very significantly on the type of ataxia. We know that there are some types of ataxia which probably aren't inherited, or where the risk to children or to other family members may be very low; but equally there are conditions where the risk to family members may be significant. This is where the local genetic services come in; they make sure that people have all the information they need to assess if the issue needs to be discussed, if other family members need to be contacted and what the best way to approach the situation might be. Regarding insurance, once somebody is diagnosed with a condition, you have to declare it as part of the insurance, although it can depend on what kind of insurance you're talking about. With life insurance and travel insurance, for example, it would need to be declared on your forms.

The issue gets more difficult when you talk about pre-symptomatic testing, e.g. if somebody has a parent with Spinocerebellar Ataxia Type 2, but no signs of ataxia themselves, and they want to have genetic testing to see if they are going to develop the condition in the future. Again, I think this is something that needs to be discussed very carefully with a consultant in your region who has specialist expertise in clinical genetics. They will help you to decide whether pre-symptomatic testing is appropriate and whether there are implications regarding insurance. Essentially, if you know that you run a 50% risk of having ataxia, insurance companies sometimes weigh it against you, but if you have a negative test result, it can be in your favour. It's a very tricky area that requires a lot of consultation with the medical services before going ahead with anything. Such consultation will help you to think about what information you need to share or discuss with your family and how and when is best to do this. I think there are a lot of implications about this and you need to get specialist advice from your local services.

Sue Millman: You can also be signposted towards insurance policies by speaking to Ataxia UK's helpline, particularly travel insurance.

Vitamins and supplements

Question 11: Are any vitamins recommended for ataxic conditions, or are they simply placebos? Could you give examples please?

Andrea Nemeth: Well, I think it depends on what kind of vitamins we're talking about, vitamins are very specific compounds. We certainly know that there is a clinical trial for idebenone in Friedreich's (which is related to the supplement Coenzyme Q10 which is contained within certain types of vitamin preparations that one can buy over the counter). At

the moment we don't have any conclusive evidence about the efficacy of idebenone in Friedreich's ataxia, but the results so far are quite encouraging. I think the trial will be finished in about six months' time, so we expect to have results within the next year or so. With respect to vitamins, most people would probably say a very healthy diet generally is always good, but there is no specific evidence for any other vitamin type preparations being helpful in ataxia. One has to be careful about spending vast quantities of money on vitamins when there is no evidence of their benefit.

Alastair Wilkins: I agree. There are very rare cases of Vitamin E deficiency that cause ataxia and part of the diagnostic tests for people with ataxia is to check Vitamin E levels, so Vitamin E is important. There was an Ataxia UK-funded study completed recently, which looked at Coenzyme Q10 and vitamin E supplementation in Friedreich's ataxia. What they found was that people who have a low baseline Coenzyme Q10 and Vitamin E level may derive some benefit from Coenzyme Q10 and Vitamin E supplementation. [Please refer to the last Ataxian (No. 166), the Ataxia UK website or contact the office for the full results of this trial].

The other important Vitamin is B12. Deficiency of this is very common and can cause ataxic symptoms. Every neurological patient gets their Vitamin B12 level checked and if deficient, sometimes replenishing the levels can be helpful.

Disclaimer

Please note that we publish this part of Ataxia UK's Conferences for information purposes only. Readers must seek their own medical advice before taking or refraining from taking any action based on the information contained in this document and nothing should be construed as medical advice given by the doctors, Ataxia UK or any of its officers, trustees or employees. No person shall have any claim of any nature whatsoever arising out of or in connection with the contents of this document against Ataxia UK or any of its officers, trustees or employees.

www.ataxia.org.uk

Tel: 020 7582 1444

Helpline: 0845 644 0606

Ataxia UK works across the whole of the UK and is a charity registered in Scotland (no SC040607) and in England and Wales (no 1102391) and a company limited by guarantee (4974832).