

www.mstrust.org.uk 29 April 2010

Catching multiple sclerosis before it strikes

Although there is currently no cure for MS, a breakthrough finding from a Tel Aviv University scientist and physician may lead to earlier diagnosis, more effective intervention.

Multiple sclerosis (MS) is an equal opportunity destroyer. It attacks the central nervous system and eventually renders most patients disabled. Among its high-profile victims are celebrated cellist Jacqueline du Pre, whose career was ended by MS, and Joan Didion, one of America's greatest writers - but they are far from alone.

The National MS Society estimates that there are currently about 400,000 cases in the US and more that 2 million suffer from the disease over the world. Although there is currently no cure, a breakthrough finding from a Tel Aviv University scientist and physician may lead to earlier diagnosis, more effective intervention, and perhaps even a cure for the autoimmune disease. Prof Anat Achiron of Tel Aviv University's Sackler Faculty of Medicine and vice-dean of research at Sheba Medical Center has uncovered a new way of detecting MS in the blood through her research at Sheba. The findings, just published in the journal *Neurobiology of Disease*, are expected to pave the way for a diagnosis of MS before symptoms can appear, allowing for earlier treatment.

"We are not yet able to treat people with MS to prevent the onset of the disease but knowledge is power," Prof Achiron says. "Every time we meet a new patient exhibiting symptoms of MS, we must ask ourselves how long this has been going on. We can diagnose MS by brain MRI, but we've never been able to know how 'fresh' the disease is," she says.

Clues for early intervention

If doctors can predict the onset of MS early enough, intervention therapies using immunomodulatory drugs such as Copaxone or beta-interferon drugs that stave off MS symptoms, might be used.

"We theorized that if we looked at the gene expression signature of blood cells in healthy people, we could look for possible biological markers that characterize those who subsequently developed MS," says Prof Achiron.

Examining blood samples of twenty 19-year-old Israelis who were inducted into the army as healthy soldiers, and the nine of them who later developed MS, Prof Achiron and her team at Sheba were able to use a "high throughput analysis" using more than 12,000 gene transcripts expressions. The screening compared similarities and differences in the blood of those who developed MS and those who did not, eventually establishing biological markers.

"Those who will develop MS will show a different blood signature from those who will not," says Prof Achiron. "When we compared the gene expression signatures, we saw a similar pattern of the same working biological processes."

Seeing nine years into the future

These early genetic markers may now be used to test for multiple sclerosis up to nine years before healthy young adults start developing symptoms. And because MS is thought to have a genetic component and a tendency to be found in siblings, Prof Achiron says the biomarkers can be used as a tool for brothers and sisters of patients.

Why test in advance of a cure? "The idea is that we'll know more about the genetics of MS through this new discovery, with the hope that early intervention therapies may be more effective, and help advance medicine toward a cure," Prof Achiron says.

By the time a person notices symptoms, significant and irreversible nerve damage is already done. MS is classified as an autoimmune disease that afflicts the brain and spinal cord.

Symptoms vary, because the location and severity of each attack can be different, and until now, there has been no way of knowing who it will strike.

The disease causes the body's immune system's T cells to mistakenly regard the myelin sheath around our body's neurons as foreign, so the immune system starts attacking the sheath, causing neurons to short circuit. The disease is more prevalent in cold climates and attacks twice as many women as men.

This new insight into who will develop MS in the future is a first on the path of finding a cure to the disease.

Author: Physorg.com

www.timesonline.co.uk 30 April 2010

Babies born in summer 'more likely to develop multiple sclerosis'

Babies born in the summer months have a higher risk of developing multiple sclerosis (MS) because their mothers do not get enough sun during pregnancy, a study says.

Mothers-to-be who failed to get enough sunshine - cutting off a main source of vitamin D - were nearly a third more likely to have offspring who developed MS, researchers from the Royal Children's Hospital in Melbourne and the Australian National University claimed.

They said that exposure to sunlight in the first three to four months of pregnancy could affect how a baby's central nervous and immune system developed. The study found that babies born in November and December (during the Australian summer) were 32 per cent more likely to develop MS than those born in May and June.

The research, published on the *British Medical Journal's* website, looked at 1,524 patients with MS born between 1920 and 1950 and noted the month of birth and the region they were born in. They compared the data with levels of ultraviolet radiation across Australia.

Babies born in early summer months had a higher risk of MS than those born in early winter. No link was found between exposure to sunlight in the last four months before a woman gave birth and risk of MS. But those women who had low sunlight exposure in the first three or four months of pregnancy had a higher risk of their child developing the condition.

The researchers said: "Our results show a trough in multiple sclerosis in people born in May-June, when a protective effect is evident, compared with a peak in those born in November-December, thus mirroring the northern hemisphere pattern of a peak associated with May."

More than 60 per cent of the British population have "sub-optimal" levels of vitamin D, with the problem being worse in Scotland, the North of England and among ethnic minorities. Rates of MS in Scotland and other northern countries are also among the highest in the world.

Recent studies indicate that vitamin D supplements could help asthma sufferers who do not respond to the usual steroid treatment, while others say that it can protect against bowel cancer and heart disease.

The Food Standards Agency said that "most people should be able to get all the vitamin D they need from their diet and by getting a little sun".

Just 15 minutes exposure to sunshine is enough to provide the body with the equivalent of 500 micrograms (0.5mg) of vitamin D. Pregnant or breastfeeding women, and people over 60 are advised to take 10 micrograms of vitamin D each day.

"Taking 25 micrograms (0.025 mg) or less of vitamin D supplements a day is unlikely to cause any harm," the agency said.

Doug Brown, head of biomedical research at the MS Society, said: "These results add to the weight of existing evidence suggesting vitamin D plays a role in the development of MS."

Stem cells raise hope for treatment for multiple sclerosis patients

Thousands of MS sufferers could benefit from a revolutionary treatment that injects them with stem cells taken from their own bone marrow.

Researchers have long believed that the stem cells could halt and even reverse the effects of the disease by patching up the damaged parts of the brain and spinal cord.

Now British scientists carrying out one of the first ever trials into the procedure believe that they have proved that it works.

The research team, led by Professor Neil Scolding, at the University of Bristol and North Bristol NHS Trust, believe that the treatment has stabilised the condition and shown some "benefits".

"We are encouraged by the results of this early study," he said.

"We believe that stem cells mobilised from the marrow to the blood are responsible, and that they help improve disease in several ways."

MS or multiple sclerosis is an incurable disease that affects around 85,000 people in Britain slowly attacking the central nervous system and leaving many sufferers eventually wheelchair bound.

For some reason the immune system turns on healthy nerve cells and damages them.

Previous studies in the laboratory have shown that stem cells are able to develop into other cell types, travel through the bloodstream to the brain and are actively taken up by damaged areas. The trial, which lasted a year, is one of the first to use patients' own bone marrow stem cells to treat their MS.

It involved six people with MS, aged between 30 and 60, having a pint of bone marrow extracted from their pelvises.

The material is filtered of bone and fat leaving pure stem cells which are then injected on the same day back into the patients' arms.

Over the year, the patients were monitored closely and given regular brain scans to see what impact the treatment has had on them.

The study, journal *Clinical Pharmacology and Therapeutics*, carried out at Frenchay Hospital avoids the ethical controversy that surrounds many stem cell studies because it does not use human embryos.

Researchers found that the patients suffered "no serious adverse effects" from the treatment and tests suggested the disease was stable and there had been improvement in the effectiveness of damaged nerve cells.

They showed that the damaged nerve pathways were able to carry electrical pulses more effectively after the treatment.

Now the researchers want to carry out a longer and larger study to see if the treatment can be improved and works consistently.

Professor Neil Scolding said: "The safety data are reassuring and the suggestion of benefit tantalising."

Dr Claire Rice, co-author, said: "The results are very encouraging. We would have expected these pathways to get worse but they have actually got better.

"It is exciting because the treatment is relatively pain free and patients do not need to stay overnight in hospital."

Bone marrow is known to contain stem cells capable of replacing cells in many types of tissues and organs - and so is of great interest to those working to develop new treatments for many diseases, including those affecting the nervous system.

An earlier study on 21 adults in the *Lancet* also showed that stem cells could halt the progress of the disease and even show some improvement.

The idea is that if caught early enough the stem cells could protect patients from the permanent damage caused to nerve cells and prevent disability.

Canadian trials to examine 'liberation procedure' for multiple sclerosis

Duncan Thornton is still getting used to enjoying the small things that most Canadians take for granted.

"I do laundry spontaneously," says the 47-year-old resident of Winnipeg, Manitoba. Diagnosed with multiple sclerosis in August 2009, Thornton figures he's had the disease for at least two decades. "Fatigue was always the most disabling aspect of my illness... For the last 20 years, anytime I stood for more than five minutes I began looking for a chair."

Duncan and his brother, 49-year-old Evan of Ottawa, Ontario, who also has MS, made headlines in March after travelling to a clinic in Poland for surgery nicknamed the "liberation procedure."

The operation is based on research by Paolo Zamboni, a professor of medicine at the University of Ferrara in Italy. He suspects multiple sclerosis is not, as is widely believed, an auto-immune disease, but rather, a vascular condition he dubbed chronic cerebrospinal venous insufficiency, or CCSVI.

Zamboni discovered that in about 90% of people with multiple sclerosis, the veins draining blood from the brain are blocked or malformed, causing a build-up of iron in the brain. Zamboni believes that build-up causes the neurological symptoms of multiple sclerosis.

It is not a new hypothesis, according to Dr Ian Rodger, vice-president of research at St. Joseph's Healthcare Hamilton, in Ontario.

But it remains clinically untested, Rodger says. "The idea that blood vessels are involved in MS goes back over 100 years. But it rises to the surface and fades away. For the last 50 years, at least, the auto-immune theory has been somewhat dominant."

Researchers at St. Joseph's Healthcare will test Zamboni's proposition. "I have no doubt that there is an auto-immune component to MS. But what Zamboni has done is he has raised the awareness again that the vascular component could be real," Rodger says. "So it could be auto-immune with a vascular component. And who knows what else? We don't know."

Rodger says his team is looking to establish the prevalence of CCSVI by comparing subjects who have multiple sclerosis and with age- and gender-matched healthy people. Those 100 people will be put in four categories: primary progressive, secondary progressive, relapsing and remitting, and benign.

"Specifically, we are going to measure by ultrasound and try to mimic almost exactly, if not exactly, what Zamboni has done. We're also going to use MR [magnetic resonance] imaging to look at the architecture of the veins," Rodger says. "We're trying to see whether MR is superior to ultrasound. It's obviously a lot more expensive. But you see different things with MR than you see with ultrasound. So really, we're going to do a comparison."

The University of British Columbia and Vancouver Coastal Health has partnered with the University of Saskatchewan to undertake a similar research project.

"A lot of people are anxious to have a test done and surgery without having the validation done first," says Dr Anthony Traboulsee, the medical director of UBC's MS clinic. "Our feeling is that the validation of Zamboni's original findings needs to be done first before people run off to have surgery."

"So far, that hasn't been replicated and we think that is the most important first step before going on to treatment trials," Traboulsee adds.

The UBC-led team will compare the use of catheter venography with ultrasound and magnetic resonance venography as methods of validating the presence or absence of venous abnormalities in people with multiple sclerosis, compared with those who do not.

"We're also looking to see if it's real," Traboulsee says. "That's what the whole community is waiting for. Is this real or is this fantasy? If results have only come out of one group, then that is interesting but not proof in itself. So a completely independent research group needs to reproduce what somebody else did to prove it's a valid abnormality."

"The first step is to reproduce Zamboni's findings," he adds. "The second step is to find what test is good enough to find the abnormality, so we're doing both of those in one study. Then the third step would be to show if treatment is beneficial. Unless we do the proper studies, a lot of people are going to be exposed to surgery for this potential abnormality and may get a risk from the surgery without getting a clear sustainable benefit."

Author: Canadian Medical Association Journal

www.dailyrecord.co.uk 7 May 2010

Art teacher who suffers from multiple sclerosis fined for possessing half kilo of cannabis

A multiple sclerosis sufferer found with almost half a kilo of cannabis has been fined £500. A sheriff said she accepted Sheila Phillips' explanation that she used the class B drug to ease the chronic pain caused by the disease.

The 62-year-old art teacher, who was diagnosed with the condition 11 years ago, admitted taking cannabis for the past two years by eating it.

She said she bought it in large amounts to keep the costs low.

The stash, with a street value of £700, was found at her home in Carluke, Lanarkshire, by police last month after a warrant was granted.

Lanark Sheriff Court heard how both her GP and neurologist knew Phillips was taking the drug. Passing sentence, sheriff Nikola Stewart said that though she accepted the explanation for the offence, she warned that any similar incidents would be harshly dealt with.

Phillips - who appeared in court last week - works at a school for the handicapped in Lanarkshire. She had been due to retire this summer but has told education chiefs she will not be returning to work.

Cannabis has long been touted as an aid to relieve pain caused by MS.

In 1998, Prince Charles stunned onlookers by asking an MS sufferer, "Have you tried cannabis?" during a visit to a day care centre.

Wheelchair-bound Karen Drake, 48, was told by the prince that he had heard the drug was "the best thing" for MS.

But yesterday, Dr Jayne Spink, MS Society policy and research director, said: "We know some people with MS use cannabis but smoking street cannabis can expose you to toxic chemicals and you can't control the dose.

"The MS Society do not endorse the use of illegal cannabis to combat symptoms of MS."

Last night, Tory justice spokesman Bill Aitken said: "Given the quantities of drugs involved, I would have thought that the sheriff would have called for further investigation into the case.

"It would be interesting to know how long it would take Sheila Phillips to use half a kilo of cannabis."

DISCLAIMER

Articles in this Bulletin are meant for the sole purpose of information only and do not necessarily reflect the views of the committee.

Researchers agree on future of MS stem cell research

Today (6 May) Nature Reviews Neurology publishes an international consensus on the future of stem cell transplantation research for people with MS, paving the way for more co-ordinated global research efforts and potentially better, and quicker, patient access to stem cell clinical trials. The guidelines, which have been written and approved by some of the most well respected international MS researchers, as well as MS Societies from around the world, spell out hope for the future of MS stem cell research and debunk myths about overseas stem cell clinics claiming to cure the condition.

Professor Gianvito Martino from the San Raffaele Scientific Institute in Milan, Italy, and Professor Robin Franklin from the University of Cambridge, UK, are lead authors for the guidelines, which:

- outline the promise stem cell transplantation has shown in early stage clinical trials and ways they could be used to treat MS in the future
- describe the different types of stem cells that might be used to treat different types of MS
- detail methods of delivering these stem cell therapies into patients
- highlight best practice in conducting clinical trials to evaluate the safety and efficacy of stem cell therapies in MS

A stem cell public information booklet "Stem Cell Therapies in MS" produced in partnership by MS Societies from the UK, USA, Italy, France and Australia and the MS International Federation summarises the guidelines for people affected by MS.

Researchers have agreed that stem cells are likely to have a significant role to play in the treatment of MS, but also warn that expectations should be realistic.

Professor Gianvito Martino said: "At this stage it is unreasonable to claim that stem cells are a magic cure for MS. It is, however, likely that they will one day play an important role in treating the condition."

Professor Robin Franklin added: "It is only by working together will we get the answer as to whether stem cell transplants hold promise in the treatment of MS. The guidelines will help the research community get to that answer more quickly than we would by working in isolation."

The guidelines are the result of an international stem cell consensus meeting held in London in May 2009 organised by the MS Society in the UK and USA, and supported by MS Society of Italy, France, Australia and the MS International Federation.

Dr Jayne Spink, Director of Policy and Research at the MS Society in the UK, said: "The MS Societies around the world are in a unique position to facilitate co-ordination and collaboration regarding international stem cell research. This should help the research to progress more quickly."

She added: "We have coordinated the production of these guidelines along with the public information booklet to provide accurate information that should help counteract the confusion caused by unscrupulous stem cell clinics falsely marketing MS cures."

YOUR JOKES

They're Back! Those wonderful Church Bulletins! Thank God for church ladies with typewriters. These sentences (with all the BLOOPERS) actually appeared in church bulletins or were announced in church services:

The Fasting and Prayer Conference includes meals.

The sermon this morning: 'Jesus Walks on the Water.' The sermon tonight: 'Searching for Jesus.'

Ladies, don't forget the rummage sale. It's a chance to get rid of those things not worth keeping around the house. Bring your husbands.

Remember in prayer the many who are sick of our community. Smile at someone who is hard to love. Say 'Hell' to someone who doesn't care much about you.

Don't let worry kill you off - let the Church help.

Miss Charlene Mason sang 'I will not pass this way again,' giving obvious pleasure to the congregation.

For those of you who have children and don't know it, we have a nursery downstairs.

Next Thursday there will be tryouts for the choir. They need all the help they can get.

Irving Benson and Jessie Carter were married on October 24 in the church. So ends a friendship that began in their school days.

A bean supper will be held on Tuesday evening in the church hall. Music will follow.

At the evening service tonight, the sermon topic will be 'What Is Hell?' Come early and listen to our choir practice .

Eight new choir robes are currently needed due to the addition of several new members and to the deterioration of some older ones.

Scouts are saving aluminium cans, bottles and other items to be recycled. Proceeds will be used to cripple children.

Please place your donation in the envelope along with the deceased person you want remembered.

The church will host an evening of fine dining, super entertainment and gracious hostility.

Potluck supper Sunday at 5:00 PM - prayer and medication to follow.

The ladies of the Church have cast off clothing of every kind. They may be seen in the basement on Friday afternoon.

This evening at 7 PM there will be a hymn singing in the park across from the Church. Bring a blanket and come prepared to sin.

The pastor would appreciate it if the ladies of the Congregation would lend him their electric girdles for the pancake breakfast next Sunday.

Low Self Esteem Support Group will meet Thursday at 7 PM. Please use the back door.

The eighth-graders will be presenting Shakespeare's Hamlet in the Church basement Friday at 7 PM. The congregation is invited to attend this tragedy.

Weight Watchers will meet at 7 PM at the First Presbyterian Church. Please use large double door at the side entrance.

The Associate Minister unveiled the church's new campaign slogan last Sunday: 'I Upped My Pledge - Up Yours.'

MEMBERS COMPETITION

A £5 prize will be given to the member whose entry has the most correct answers. Even if you do not know all the questions, send in those you have answered – you could still win!

- 1/ What is the capital of the Canadian Province of Nova Scotia?
- 2/ Which football club won the FA Cup in 1937 and again in 1973?
- 3/ Which British driver is often referred to as the greatest Formula 1 driver never to have been World Champion?
- 4/ What is the capital of New Zealand?
- 5/ Which of Shakespeare's plays starts with a shipwreck?
- 6/ To which Royal House did Henry IV, Henry V and Henry VI belong?
- 7/ In 1704 English and Dutch forces led by John Churchill defeated a Franco-Belgian force in which battle?
- 8/ On the Beaufort scale what description is given to wind force 12?

For an extra point, name the connection

Name:

Address:

Send Completed Forms To:
Mr D Henderson
74 Windermere Road
Stockton-on-Tees
Cleveland TS18 4LY

Answers to last quiz:

1/ Gorbachev 2/ Redcaps 3/ April 4/ Yellow 5/ Tarzan 6/ Huron 7/ Oslo 8/ Rook 9/ Patella 10/ Etna

STOCKTON MS GROUP

Registered Charity Number 1032397

Treasurers Report 2009

With our large bank balances at the beginning of the year at £96,000, we decided not to do any major fund-raising in 2009. Therefore, there has been a decline in our bank balances of £28,000 to £68,000.

Our major financial activity this year was the purchase of a second hand Renault LM35 in September for £13,000, and the disposal of the LDV Convoy.

Our other major costs were

Drop in Centre	£15,308
Running costs of minibus	£4,828

Our major sources of income this year have been

Drop in charges	£1,822
Bank interest	£3,300

Finally, a thank you to all our members and volunteers who have helped the Group in all our numerous and various activities, without these people, the Group would not be as successful as it is.

David Henderson
Hon. Treasurer

STOCKTON M S GROUP

Registered Charity No. 1032397

Statement of Financial Activities for the Year ended 31st December 2009

	Unrestricted Funds	Restricted Funds	TOTAL	2008
Note	£	£	£	£
<u>Income and Expenditure</u>				
<u>Incoming Resources</u>				
Donations / Grants	471	0	471	840
Raffles, Tombolas	258	0	258	337
Charity Shop	0	0	0	35,093
Other Income	5,172	3,313	8,485	8,297
<u>Total Incoming Resources</u>	<u>5,901</u>	<u>3,313</u>	<u>9,214</u>	<u>44,567</u>
<u>Resources Expended</u>				
Direct Charitable Expenditure	-6,666	-1	-6,667	-1,649
Other Expenditure	-55	0	-55	-60
Fund-raising and Publicity				
Charity Shop	0	0	0	-928
Administration	-1,738	0	-1,738	-1,113
Drop in Centre	0	-15,308	-15,308	-15,281
<u>Total Resources Expended</u>	<u>-8,459</u>	<u>-15,309</u>	<u>-23,768</u>	<u>-19,031</u>
Excess Income over Expenditure for the Year	-2,558	-11,996	-14,554	25,536
Fund Balances Brought Forward at 1st January 2009	25,090	73,534	98,624	73,088
Fund Balances Carried Forward at 31st December 2009	<u>22,532</u>	<u>61,538</u>	<u>84,070</u>	<u>98,624</u>

The accounts have been drawn up on the accruals and prepayments basis, which is consistent with the previous year.

The above accounts and accompanying statements of assets and liabilities were approved by the Trustees

on 28/1/2010 and signed on their behalf by

THIS SHEET IS AN AUDITED SUMMARY OF THE 2009 ACCOUNTS

A MORE DETAILED SET OF ACCOUNTS ARE AVAILABLE ON REQUEST