WORKING PRACTICES

Ignoring the evidence

Diagnosis of his wife's progressive multiple sclerosis would not have taken so long had doctors taken a proper history, says **Dr David Wheldon**

This is a personal story, but I am telling it because it illustrates much of what is wrong with medicine today.

Lessons of the past – such as the necessity for intuitive cross-disciplinary history taking – have been forgotten. And the intelligence of the individual practitioner has been steamrollered by the notion of 'evidence-based medicine'. This Orwellian phrase means nothing more or less than conformity with currently accepted practice.

In 1993, I married Sarah, an accomplished painter and a violin restorer and dealer. One of our joys was walking in the countryside, often for long distances.

In 2000, on a walking holiday in the Auvergne, Sarah noticed that she was dragging her right foot a little. Once back home, she saw her GP, who sent her to an orthopaedic surgeon. He confidently made a diagnosis of congenital spinal stenosis. However, her condition deteriorated.

In 2003, her GP referred her to a neurologist. In the months between the ordering of the MRI and the scan itself, her deterioration accelerated. She became unable to walk unaided, and her right arm progressively weakened until she was unable to paint or to write. She was numb from the waist down. She had slurred speech, difficulty thinking and was often tired.

The scan revealed numerous white-matter hyperintensities. In a ten-minute neurological consultation, she was given the diagnosis of progressive multiple sclerosis (MS). No treatment was available. She was simply advised to allow the disease to evolve.

Previous episodes

Let us hold the story there. The GP and the orthopaedic surgeon should have taken a history. In the past, Sarah had had two transient episodes of weakness of the right arm and one of dimmed vision in one eye. Central neurological events separated in time and site raise immediate suspicions of MS. Sarah's disease might have been caught before it became progressive.

My Internet search, back in 2003, found preliminary evidence that chronic disseminated infection with *Chlamydia pneumoniae*, a primary respiratory pathogen, might be at the root of at least some variants of MS. *C. pneumoniae* gene-sequences had been found in the cerebrospinal fluid of a number of MS patients by workers at Vanderbilt University in the US.

There, patients treated for the infection – particularly those with early disease – had done well. Looking at Sarah's history, infection with *C. pneumoniae* seemed possible; the aggressive phase of her MS had been preceded by a mild but lengthy respiratory infection which had never resolved, instead tailing off into new-onset asthma. This is typical of *C. pneumoniae*.

I didn't accept the current idea that progressive MS is untreatable and should be 'allowed to evolve'. So after carrying out a quick risk/benefit analysis, I gave Sarah two antichlamydial agents: doxycycline plus roxithromycin. The latter is said to access the CNS, and has been used in treatment of neuroborreliosis.

What followed was dramatic. For a few days, Sarah had a Herxheimer-like reaction, with a fever and night-sweats. After this, her mental fog and cognitive deficits speedily began to vanish. Slowly, the disease was rolled back – not the natural history of progressive MS, where spontaneous global recovery is rare.

After three months' treatment, Sarah was given pulses of oral metronidazole – there is evidence that protein synthesis inhibitors push the organism into an anaerobic state. The addition of metronidazole is cidal to the stalled organism, and extended Herxheimer-like reactions may be expected as bacterial endotoxin is released. This occurred.

Eventful recovery

Sarah's recovery was not uneventful. There were a host of phantom sensations as the numbness faded, and a brief episode of reflex sympathetic dystrophy of the right arm, presumably due to local inflammation following the death of intraneural bacteria. This was characterised by hyperhidrosis and hyperaemia of the right arm, together with loss of function, and was accompanied by thalamic pain. At its most intense, it lasted a week.

SARAH LONGLANDS

An accomplished painter, Sarah has been able to resume her art

Now, 18 months later, Sarah is able to paint and to walk a mile or so. She received antibiotics continuously for a year, and is now on intermittent treatment. Sequential MRI scans show marked shrinkage of the larger (and presumably the more recent and less gliotic) lesions.

Meanwhile, evidence has accrued, strengthening the link between MS and *C. pneumoniae*. At least five centres in different parts of the world have detected *C. pneumoniae* gene-sequences in the cerebrospinal fluid of patients with MS; antibodies to the organism are found there; new infection with *C. pneumoniae* heralds relapse; specific serology becomes statistically elevated as the disease becomes progressive; and the cerebrospinal fluid of patients with MS contains bacterial heat-shock proteins which cause oligodendrocyte precursors to undergo apoptosis.

There have also been two treatment studies. The first, a small, double-blind trial, showed shrinkage of brain lesions in relapsing-remitting disease with antichlamydial treatment. The second has shown a diminution in the number of MRI gadolinium-enhancing lesions in the brain during minocycline administration.

Evidence-based medicine is the hollowest of phrases. What evidence? Whose evidence? Thinking like this generates a Gadarene conformity of mental outlook which prevents scrutiny of the real evidence. Instead, potentially dangerous and usually unsuccessful treatments are used, at great cost.

The link between *C. pneumoniae* and MS is not yet proven, but the evidence is strong. It is heartbreaking to see patients with potentially treatable disease thrown onto the scrapheap because simple risk/benefit analyses are not made.

But I, too, have to admit guilt. In my heart I had known for years that Sarah had MS, but I had not been able to face the implication of this diagnosis. Had I done so, Sarah would have received treatment earlier.

Before treatment, she was slipping from grade 6 to grade 8 on the Kurtzke disability scale. Now she has returned to grade 2. She is still making improvements, particularly in her dexterity and stamina. Spasticity and clonus have gone. Given time, I feel we may be able to resume those long walks.

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