Comment on Final Report of the Lyme Disease Review Panel of the Infectious Diseases Society of America (IDSA)

LDA
Lyme Disease Action

As a result of an investigation instigated by the Connecticut Attorney General who found that "The IDSA's Lyme guideline process lacked important procedural safeguards requiring complete re-evaluation of the 2006 Lyme disease guidelines", the IDSA convened a review panel to re-examine the guidelines. It is important to state that one of the main reasons for this re-evaluation was that "The IDSA's guideline panel improperly ignored or minimized consideration of alternative medical opinion and evidence regarding chronic Lyme disease, potentially raising serious questions about whether the recommendations reflected all relevant science." (1)

Despite the release issued by the IDSA of "guidelines unanimously upheld" there was recorded disagreement amongst the review panel members in two very significant areas:

1. **The insistence on a positive laboratory test for diagnosis of extracutaneous Lyme disease**. This was "felt to be problematic by some members of the Review Panel. Ultimately the Panel was evenly split on whether this statement would benefit from modification or clarification." (6, Additional Review of Executive Summary Statement)

   The panel recognised the importance of clinical judgement in diagnosis but stated that "All Lyme-associated clinical findings, even including erythema migrans, can be seen in diseases other than Lyme disease". It was felt that symptoms such as such as "arthralgias, fatigue, and cognitive dysfunction, are seen in many other clinical conditions and are, in fact, common in the general population". As some patients may view these as their most prominent symptoms, this highlights the necessity for patients and doctors to be aware of others.

   There was recognition that "On the other hand, the Panel felt that in clinical practice, the presence of certain classic complications of Lyme disease such as aseptic meningitis, AV nodal block, inflammatory arthritis, and cranial or peripheral neuropathies, in a patient with epidemiologic risk of Lyme disease and in whom alternative diagnoses have been excluded or are unlikely, may be sufficiently convincing as to constitute an exception to the statement in the Executive Summary."

   I.e. in an endemic area negative serology is not a bar to treatment. This change would be progress but the detail of the wording primarily reflects American presentations. What is known about the "classic complications" of European Lyme? See Strle et al (2):"the clinical features associated with *B. afzelii* are much less specific and more difficult to diagnose." Because UK sero-negative patients are deemed not to have Lyme disease, where do we find the data?

2. **The insistence that there is no evidence for continuing infection following standard treatment.** One panel member did not agree that the recommendation was medically/ scientifically justified. The fact that the panel agreed that "consideration be given to changing the phrase 'no convincing biologic evidence' to something more specific, such as 'Reports purporting to show the persistence of viable *B. burgdorferi* organisms after treatment with recommended regimens for Lyme disease have not been conclusive or corroborated by controlled studies.' " indicates that this point was the subject of some debate.

   So the panel recognises that there have been papers (mostly European, as it happens eg 3, 4, 5) documenting the survival of *B.burgdorferi* in symptomatic patients following recommended treatment. The panel does not say why the cases it considered are not conclusive but states "caution should be used in extrapolating results from European studies to North American patients, due to the well-established microbiological and clinical distinctions in Lyme borreliosis on the two continents."

   So where does that leave Europe?

In addition the panel recommended the following changes to the guidelines, with the removal of the words indicated.

- Prophylaxis: "the ~~**excellent**~~ efficacy of antibiotic treatment of Lyme disease if infection were to develop"
- Treatment for early Lyme disease: "Each of these antimicrobial agents has been shown to be ~~**highly**~~ effective for the treatment of erythema migrans and associated symptoms in prospective studies."
- Late Lyme arthritis: Adult patients with arthritis and ~~**objective**~~ evidence of neurologic disease should receive parenteral therapy with ceftriaxone

It can be seen that despite unanimously upholding the guidelines the panel appears to have had significant misgivings about some of the recommendations and to have felt the need to suggest that changes are made **when the guidelines are next updated.** If patient care can be improved by these modifications, why not make changes now?

It also stated that "In addition to the review by this Panel, the recommendations in the 2006 Lyme Guidelines are further corroborated by guidelines and statements by other independent bodies in the United States and Europe." The panel fails to mention that this is a circular argument in that the European guidelines are based on the IDSA guidelines and the other US independent body (American Academy of Neurology) had shared a chairman, and many authors, with the IDSA guidelines panel.

The panel did emphasise that "Guidelines are not intended to be (and cannot be) rigid dicta, inflexible rules, or requirements of practice." (6, Conclusion) In practice, clinicians will probably follow the guidelines and in many instances, the element of clinical judgement will be eliminated, often to the detriment of the patient. See full report

Conclusions

It would be appropriate for doctors in the UK to be informed that
1. Negative serology is not a bar to treatment for a patient with Lyme disease symptoms.
2. Serious consideration should be given to further courses of treatment for patients whose symptoms continue or recur following standard courses of antibiotics.

In addition more good quality evidence would help to improve guidance and so in response to this report the UK should
3. Initiate controlled studies to verify the persistence of viable *B.burgdorferi* in symptomatic patients following treatment.
4. Initiate studies to elucidate the pattern of symptoms in UK Lyme disease patients to improve clinical diagnostic guidance.

References

1. Connecticut Attorney General's release http://www.ct.gov/ag/cwp/view.asp?a=2795&q=414284
2. Strle et al. Comparison of Findings for Patients with *Borrelia garinii* and *Borrelia afzelii* Isolated from Cerebrospinal Fluid. Clinical Infectious Diseases 2006; 43:704–10
3. V. Preasc Mursic et al Formation and cultivation of *Borrelia burgdorferi* spheroblast-L-Form variants. Infection 24(1996); 218-226
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5. Haupl T et al Persistence of *Borrelia burgdorferi* in ligamentous tissue from a patient with chronic Lyme borreliosis. Arthritis Rheum. 1993 Nov;36(11):1621-6
6. IDSA Lyme disease Review Panel report http://www.idsociety.org/Content.aspx?id=16499