1. **Two-Year Evaluation of*Borrelia burgdorferi*Culture and Supplemental Tests for Definitive Diagnosis of Lyme Disease**

Peggy Coulter,[1]**Clara Lema**,[1]**Diane Flayhart**,[1]**Amy S. Linhardt**,[1]**John N. Aucott**,[2]**Paul G. Auwaerter**,[2]and**J. Stephen Dumler**[1,*]

Published 2005

Comparisons with qualitative clinical assessments

"Overall, initial serologic tests agreed with possible or probable clinical Lyme disease diagnosis in only50%(40/80) of cases." [COIN TOSS]

2. **Commercial test kits for detection of Lyme borreliosis: a meta-analysis of test accuracy**

Michael J Cook[1],**Basant K Puri**[2]

Sensitivity for each test technology varied from 62.4% for Western blot kits, and 62.3% for enzyme-linked immunosorbent assay tests, to 53.9% for synthetic C6 peptide ELISA tests and53.7% when the two-tier methodology was used.[COIN TOSS]

3. **Treatment Delays Increase Risk of Persistent Illness in Lyme Disease**

https://www.hopkinslyme.org/news/treatment-delays-increase-risk-of-persistent-illness-in-lyme-disease/

December 15, 2020By JOHNS HOPKINS LYME DISEASE RESEARCH CENTER

Summary

In this retrospective study, one-third of Lyme disease patients report delayed treatment ofgreater than 30 days, and delayed treatment is associated with post-treatment Lyme disease (PTLD). Delays in treatment are shown to significantly impact patient outcomes and indicate thatimproved Lyme disease diagnosisand prevention strategies are needed.

4. **Dennis Parenti's 1998 vaccine presentation** (Lyme.org at 1 hr 9 minutes). Dr. Parenti, medical director of the vaccine trial (LYMRrix) – the largest Lyme trial in history, actually discusses the research findings of seronegative Lyme. At 36% it is a common presentation. Patients were culture positive and/or

DNA positive for Borrelia infection and western blot negative

1998 satellite conferences from Illinois (from 1:09 to end)
https://www.facebook.com/LymeDiseaseFoundation/videos/426886747897148

Slide from Dennis Parenti's 1998 vaccine presentation:

