

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

[Peggy Coulter](#),<sup>1</sup>[Clara Lema](#),<sup>1</sup>[Diane Flayhart](#),<sup>1</sup>[Amy S. Linhardt](#),<sup>1</sup>[John N. Aucott](#),<sup>2</sup>[Paul G. Auwaerter](#),<sup>2</sup> and [J. Stephen Dumler](#)<sup>1,\*</sup>

Published 2005

Comparisons with qualitative clinical assessments

*"Overall, initial serologic tests agreed with possible or probable clinical Lyme disease diagnosis in only 50% (40/80) of cases." [COIN TOSS]*

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

[Michael J Cook](#)<sup>1</sup>, [Basant K Puri](#)<sup>2</sup>

*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 and 53.7% 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, 2020 By [JOHNS HOPKINS LYME DISEASE RESEARCH CENTER](#)

Summary

In this retrospective study, one-third of Lyme disease patients report delayed treatment of greater 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 that improved Lyme disease diagnosis and prevention strategies are needed.

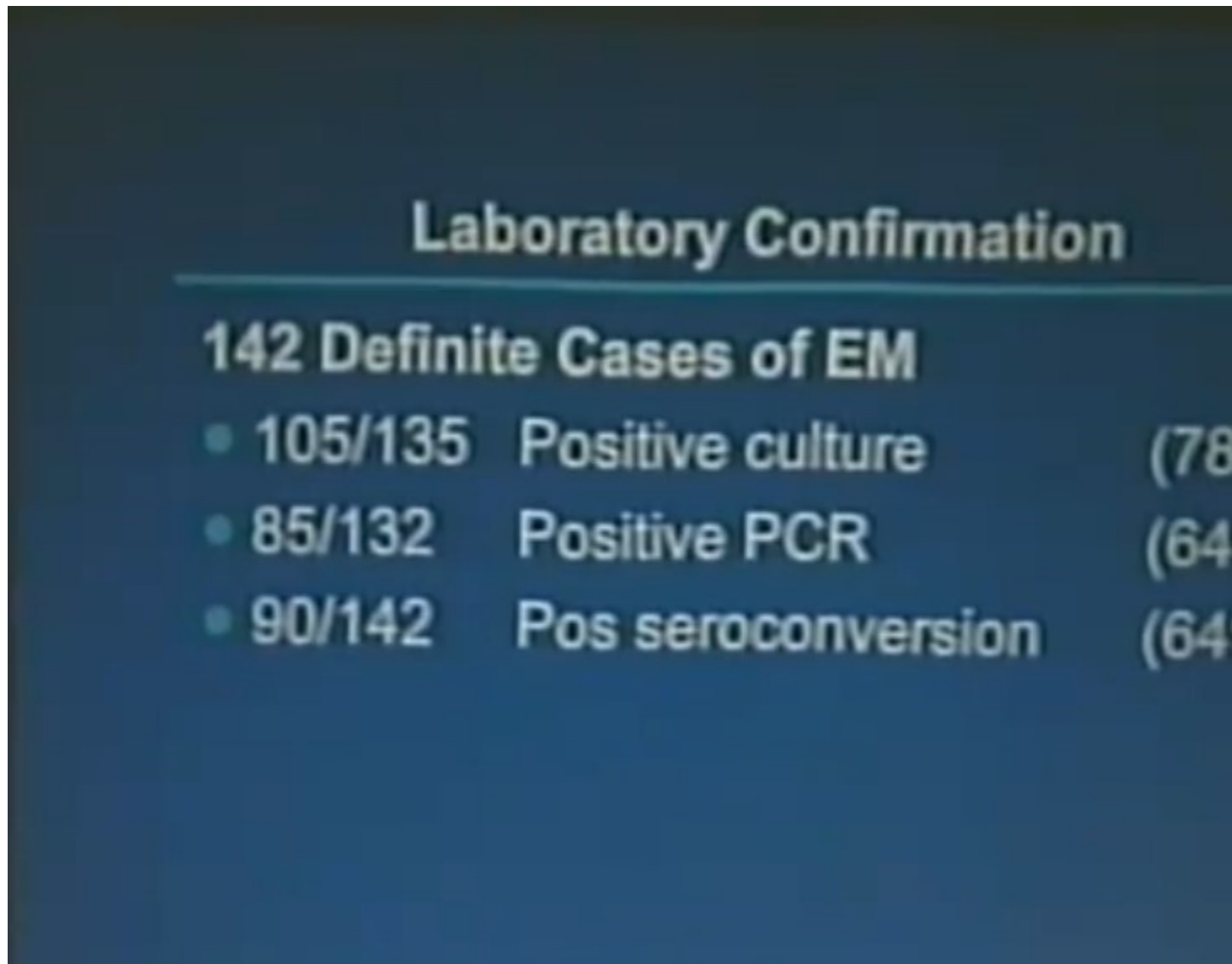
4. **Dennis Parenti's 1998 vaccine presentation** (Lyme.org at 1 hr 9 minutes). Dr. Parenti, medical director of the vaccine trial (LYMRrix) – the largest Lyme trial in history, actually discusses the research findings of seronegative Lyme. At 36% it is a common presentation. Patients were culture positive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



Laboratory Confirmation			
142 Definite Cases of EM			
• 105/135	Positive culture		(78
• 85/132	Positive PCR		(64
• 90/142	Pos seroconversion		(64