PUBLIC HEALTH SERVICE

Meeting of the
Interagency Coordinating Committee on
Human Growth Hormone and Creutzfeldt-Jakob Disease

October 30, 2019, 10:00 AM

National Institutes of Health
Building 31, Room 9A22
Bethesda, Maryland

Committee Members Attending
Dr. Patricia Bright, FDA (by phone)
Dr. William Cefalu, NIDDK
Dr. Ellen Leschek, NIDDK
Dr. James Mills, NICHD
Dr. Avindra Nath, NINDS
Dr. Griffin Rodgers, NIDDK, Chairman
Dr. Lawrence Schonberger, CDC (by phone)

Also Attending
Dr. Joe Abrams, CDC (by phone)
Dr. Greg Germino, NIDDK
Dr. Ryan Maddox, CDC (by phone)
Ms. Amy Reiter, NIDDK
Dr. Heather Rieff, NIDDK
Dr. B. Tibor Roberts, NIDDK
Ms. Hilary Shutak, NIDDK
Dr. Robert Tilghman, NIDDK
Ms. Alyssa Voss, NIDDK

Introductions
Dr. Rodgers introduced Dr. William Cefalu and welcomed him as a new member of the Committee. Dr. Cefalu joined NIDDK in July 2019 as Director of the Division of Diabetes, Endocrinology, and Metabolic Diseases.

Westat Contract
Dr. Leschek reported that Westat is in the second year of the current 5-year contract.

National Hormone and Pituitary Program (NHPP) Cohort Update
Dr. Leschek reported that there had been an additional case of CJD within the cohort. Later in the meeting Dr. Maddox reported that this case was the eighteenth to have been neuropathologically confirmed. The number of clinically confirmed cases remains at 15, bringing the total number of official cases to 33. There have not been any new clinically suspicious cases, nor are there any cases under investigation.

The new case was a person in the cohort who had been treated with growth hormone from 1973 to 1983 and died in 2018 with symptoms of CJD, and the period between midpoint of hormone treatment and onset of CJD symptoms was about 39 years. To date, however, no CJD has been reported in an individual who began treatment with NHPP hormone after 1977, when Dr. Albert Parlow's laboratory began purifying hGH for the Program. This suggests the new case of CJD was likely to have resulted from treatment received no later than 1977, implying a slightly longer incubation period of at least 41 years prior to onset of symptoms.

Dr. Rodgers raised the question as to whether the age of the cohort members who underwent hormone treatment could influence risk for developing CJD. Analysis of the cohort data, however, did not show a significant association between age at start (or midpoint) of treatment and CJD if the data are corrected for treatment duration, which is the most important contributing factor for CJD risk.

Dr. Leschek informed the Committee of an instance in which a cohort member's body was donated for research or instructional purposes upon death in 2017. (There were two previous such donations discussed at the 2018 meeting.) The death was not clinically suspicious for CJD, and no bodily organs or tissues were transplanted. Upon investigation, Dr. Leschek ascertained that numerous organizations manage donations for research or instructional purposes, and there is no standardized procedure for screening donated bodies and/or tissues for CJD. Thus, while the risk of CJD transmission from deceased cohort individuals without known CJD is low, it is the consensus of the Committee that cohort members should not donate their bodies or tissues for research or instructional purposes.

Updates on Fact Sheet and Public Inquiries

Ms. Shutak stated that the comprehensive and summary fact sheets were updated to reflect the new cohort CJD case and the new foreign cases. Scientific papers discussed at the 2018 meeting were added to the resource list. For reference, the comprehensive fact sheet is here, the summary version is here, and the resource list is here.

Ms. Voss reported that there were seven inquiries regarding hGH and CJD over the past year (compared to nine the year before). All were from confirmed cohort members. None of the calls were suggestive of potential new cases of CJD.

Recent Progress in CJD Research

Dr. Nath and Dr. Schonberger noted four recent papers of interest:

1. Honda H, Matsumoto M, Shijo M, *et al*. Frequent detection of pituitary-derived PrP^{res} in human prion diseases. *J Neuropathol Exp Neurol*. 2019; 78: 922-929.

2. Purro SA, Farrow MA, Linehan J, *et al.* Transmission of amyloid-β protein pathology from cadaveric pituitary growth hormone. *Nature*. 2018; 564: 415-419.

3. Raymond GJ, Zhao HT, Race B, *et al*. Antisense oligonucleotides extend survival of prion-infected mice. *JCI Insight*. 2019; 5(16): e131175.

4. Peckeu L, Brandel JP, Welaratne A, *et al*. Factors influencing the incubation of an infectious form of Creutzfeldt-Jakob disease. *Clin Infect Dis.* 2020; 70: 1487-1490.

Report on CJD in Foreign and Commercial GH Recipients

Dr. Schonberger reported 1 new foreign (non-U.S.) hGH/CJD case in 2019, from France (bringing the French total to 122 for hGH-related cases). This brings the total to 214 foreign cases.

Griffin P. Rodgers, M.D.
Director, NIDDK