Author: Nazih Moufarrij, MD, FAANS

Wichita, USA

Email: n_moufarrij@hotmail.com

Abstract Email: n_moufarrij@hotmail.com

Abstract Title: Management of Deep Brain Stimulator Infections.

Category 1: STEREOTACTIC AND FUNCTIONAL

Abstract:
Introduction: Once a component is infected, should the whole system be removed?

Methods: A prospectively maintained registry for deep brain stimulation (DBS) surgery by a single surgeon was reviewed for infection.

Results: There were 3 infections after 163 DBS electrode implantations (1.8%). All were delayed: 6 months, 11 months and 5 years. Two occurred at the connection between DBS electrode and extension cable and were treated similarly. Where there was no gross infection at the generator, a small piece of extension was sent for culture. This incision was closed with the generator still present, dressed and protected from contamination. An incision was then made over the infected cranial connection, the remainder of the extension was sent for culture. The wound was debrided and, along with the exposed end of the DBS electrode, soaked for several minutes with a mixture of Betadine and Vancomycin solution. The electrode was protected and mobilized posteriorly. Vancomycin powder was placed and the wound was closed. The third infection was at the generator. Here, the non-infected cranial connection was opened first and the DBS electrode disconnected. A small piece of the extension was cut and sent for cultures. The wound was treated as above and closed, dressed and protected from contamination. The infected scar over the generator was opened, the generator and connection remnant sent for cultures. This wound was debrided and closed as above. In all three cases the cultures of the part that was not grossly infected were negative and the DBS system was reconstituted at a later date of at least 3 weeks. All three cases are infection free without antibiotics at 2.5, 4 and 4.5 years followup.

Conclusion: Using individualized decision making, it is possible to cure extracranial DBS infections without removing the totality of the hardware.

Additional Author(s):

Presentation Preference: Either Oral OR Poster

Study Design: Retrospective Chart Review

Manuscript: NO

Awards: NO

Has the work presented in this abstract or substantially similar work been presented or published previously?

No

Has the work in this abstract or substantially similar work being submitted for presentation at another meeting?

NA

Is your work pending FDA approval?

No
Are you an Advanced Practice Provider and would like your abstract considered for oral presentation in the Advanced Practice Providers Plenary Session?

Are you a Medical Student or Resident and would like your abstract considered for oral presentation in the Young Neurosurgeons Research Forum?

No