P44

Bring Me Sunshine!!.....Vitamin D and Charcot Neuroathropathy

R.Thomas, D.E.Price, J.Stephen, C.Topliss, U Choudhuri. Diabetes Centre, Morriston Hospital Swansea, U.K

Background: Charcot neuropathic osteoarthropathy has been noted as a consequence of various peripheral neuropathies, diabetic neuropathy being the most common eitiology. Misdiagnosis of Charcot Neuroarthropathy can result in extensive damage, deformity ulceration and infection of the diabetic foot. In this retrospective audit, subjects with Diabetes and suspected/diagnosis of a Charcot foot are observed to present in Winter months rather than Summer time and most are deficient in Vitamin D3 (250H Cholecalciferol) levels. **Methods:** Of 26 subjects with diabetes and a diagnosis of an acute Charcot foot, all the subjects first presented between September and March, 46% male, 23 % Type 1 diabetes mean age 56yrs(35-81yrs). Since September 2013 Vitamin D3 (250H Cholecalciferol) levels were analysed on 16 patients recently diagnosed/suspected of Charcot Foot. **Results:** All 16 subjects tested indicated low levels ranging from undetected-16ng/ml mean range 7ng/ml. The subjects were evenly spread 50 % male/female; 23 % Type 1diabetes. Those subjects recently tested and detected with levels of Vitamin D below the recommended All Wales Guidance of 20ng/ml, have received supplements of Vitamin D together with the off loading in a total contact cast (TCC). The acute phase of Charcot Arthropathy in these subjects appeared to enter the quiescent phase sooner than those who had not been tested who had also received a TCC. **Conclusion:** Should this simple test and treatment become part of the standard treatment for such subjects? Should it become a routine test at an annual diabetic review clinic for subjects diagnosed as having neuropathy after a foot examination? Would Vitamin D3 supplement prevent Charcot Arthropathy/enhance quiescent phase in such persons? Further research is required.