

extracted. All analysis was adjusted for consulting behaviour to reduce ascertainment bias.

**Results:** There were 821 cases (1,642 controls), 588 (72%) of which were males. Mean age at diagnosis was 62 years. Prevalence = 0.2%. Diabetes was significantly associated with Dupuytren's (OR 1.82). Insulin use was strongly associated with Dupuytren's (OR = 4.33), as was metformin (OR = 3.67); the association was also present for sulphonyureas (OR = 1.89). There was no association with epilepsy and Dupuytren's (OR = 1.05). None of the treatments for epilepsy were associated with Dupuytren's disease.

**Conclusion:** Diabetes is a significant risk factor for Dupuytren's Disease. There is an increased risk for treated diabetes rather than diet controlled diabetes. Epilepsy and anti-epileptic medication are not associated with Dupuytren's Disease. Ascertainment bias may explain the association observed in previous studies.

#### 24. DUPUYTREN'S DISEASE: IN THE PORTUGUESE POPULATION

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The authors present a hospital-based case-control study of the Dupuytren's Disease. The study involved 125 cases with the disease and 119 controls without the disease matched on age, sex, ethnicity and residential area were patients attending the hospital. Data was recorded from cases and controls and nonparametric analysis was applied to infer relationship between variables. Logistic regression was used to assess the effect of the collected variables on the appearance of the disease. In this study, Dupuytren's Disease was related positively to alcoholism, long term duration of diabetes and a positive family history. However, the association

with alcoholism is only seen in males. Recurrence is associated with the patients' age at the onset of the disease and is more likely to occur in younger patients.

#### 25. GENETIC AND ENVIRONMENTAL INFLUENCE IN DUPUYTREN'S DISEASE AMONG 6,105 MALES

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**Introduction:** A familial clustering of Dupuytren's disease (DD) has been recognized for a long time, however the overall contribution of genetic factors remains unknown.

**Aim:** To assess the relative contribution of genes and environment in the aetiology of DD.

**Material and methods:** We performed a study among Danish twins born 1870 and onwards. All male twins with Dupuytren's disease (diagnose (n = 204) or operation (n = 147)) were identified through linkage with a nationwide register 6,105 male-male twin pairs. Since monozygotic (MZ) twins share all their genes and dizygotic (DZ) share on average half their genetic material we expect greater phenotypic similarity in MZ than in DZ twins if there is a genetic contribution in the aetiology of the disease.

**Results:** The similarity in MZ and DZ twins was assessed using probandwise concordance rates for Dupuytren's disease. These statistics were consistently higher among MZ twin pairs compared with the DZ twin pairs, indicating heritable effects: concordance rates (operations: 0.36 vs 0.07, diagnoses: 0.31 vs 0.06). The heritability of DD was estimated to 72% (diagnoses) - 80% (operations).

**Conclusion:** The results suggest that genetic factors play a major role in Dupuytren's disease.