

P051 Enteroviral vp1 expression in Type 1 diabetes
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Enteroviral infections have long been implicated in the initiation of beta-cell destruction in human type I diabetes (T1D). Recently expression of the enteroviral capsid protein, vp1, was detected in the beta cells of 3/6(50%) T1D patients, but not in 26 normal paediatric pancreases, implying that chronic enteroviral infection can occur in T1D. We have examined vp1 expression by immunohistochemistry in fixed, paraffin-embedded, pancreas samples removed post mortem from 72 recent-onset T1D patients and compared with 79 relevant controls (including type 2 diabetes and normal neonatal, paediatric and adult pancreas). Intense and highly localised vp1 staining, confined to insulin-containing islets, was observed in 44/72(60%) of the T1D patients. Similar vp1-positivity was observed in only 2/50(4%) normal paediatric controls, suggesting that chronic vp1 persistence is less prevalent in non-diabetic children. Intense islet vp1 staining was seen in 3/19(16%) normal adults and in 7/10(70%) T2D. The intense vp1 staining in normal adults and T2D was accompanied by extensive centro-acinar and smooth muscle cell immunopositivity; which was only observed infrequently and at a much lower intensity in T1Ds. Islet vp1 immunopositivity is found more commonly in the islets of T1D patients than in paediatric controls but does not appear to be restricted solely to patients with T1D.