Plasma cells within granulomatous inflammation display signs pointing to autoreactivity and destruction in granulomatosis with polyangiitis. Artiritis Research and Therapy 2014, 16: R55

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Background

Granulomatous inflammation is an inflammation which occurs in many diseases with unknown etiology. It is characterised by mass formation of granulocytes in area of infection. Anti-neutrophilic cytoplasmic antibodies (ANCA) is the marker for granulomatous inflammation.[1] Clinical studies hints towards the localisation of this GI in respiratory tract leading to autoantibody directed bone and cartilage loss.[2,3]

Methods

In current study the authors have investigated the role of Plasma Cells located in nasal cavity of 26 Granulomatosis with polyangiitis (GPA) patients. Varying mutation pattern of Ig gene were analysed using laser-assisted microdissection and semi-nested polymerase chain reaction (PCR). IHC and ELISA was employed to investigate the levels of proliferation inducing ligand, Bcell receptor, transmembrane activator and calcium modulator. This step was carried out to depict the overall rate of autoimmune activation in plasma cells of GPA affected patient.

Implication

Based on current study it may be said that plasma cells in GPA may be the site of autoreactivity. However, according to authors despite the fact that the current data is supported by their previous findings[4] they do not consider the genetic data only as a strong base for considering the plasma cells in GPA as site for autoimmune reactivity and present the current study as platform which needs to be explored more in identifying the site of autoimmune reactivity in GPA.

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