

Cytological Characterization of Granulomas



Lymphotoxin-Dependent Prion Replication in Inflammatory Stromal Cells of Granulomas.

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CASY was used in this study for fast and simple evaluation of **cell number**, **cell viability** and **cell size** of dissociated cells from spleens and granulomas.

STUDY

Chronic inflammation commonly gives rise to granulomas. Aim of the study was to investigate the prion-replication ability of granulomas. Indeed, surprisingly high levels of PrP^c were found, nearly the same as found in spleens.

RESULTS

Prions replicate in the non-hematopoietic compartment of granulomas, containing predominantly fibroblasts and specialized macrophages. Thus, prion replication might occur in a broader spectrum of organs than previously anticipated with granulomas as a clinically silent reservoir of prion infectivity.

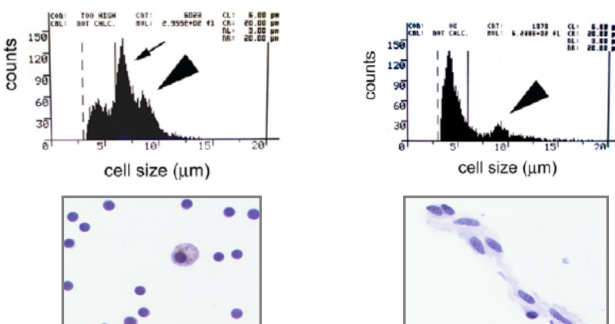


Figure: size distribution and number of dissociated cells from spleens (left) and granulomas (right) as evaluated with CASY (top). As a control, cytopins with subsequent Papanicolaou staining were performed (below: left spleens; right: granulomas).

CASY was used in the study for cytological characterization of granulomas and compared to spleen cells:

Splenic cells were mainly composed of lymphocytes (approx. 6 μm diameter), whereas granulomas were mainly composed of large cells (macrophages, granulocytes, fibroblasts) but almost no lymphocytes.