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Propionibacteria and *Mycobacteria* as possible triggers in Dutch sarcoidosis patients

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Sarcoidosis is a systemic disorder of unknown etiology. Many potential organic/anorganic substances or microorganisms have been suggested to trigger sarcoidosis, such as mycobacteria, propionibacteria, aluminum, beryllium, silica and zirconium. Routine testing for possible triggers in sarcoidosis is not daily clinical practice. However, published data suggest that possible triggers could be identified in 74% of sarcoidosis patients. Confirmation of these data in Dutch sarcoidosis patients can lead the way for randomized controlled trials in distinct subgroups of patients assessing the efficacy of antimycobacterial or antipropionibacterial treatment. In addition, it has been demonstrated previously that in a well characterized group of biopsy proven sarcoidosis patients, approximately 6% could be diagnosed as berylliosis after a thorough re-evaluation of metal exposure. Termination of exposure to triggers such as beryllium could protect patients with sarcoidosis from developing progressive disease.

In the Dutch IGRASAR study, 200 new sarcoidosis patients will be included in a prospective cohort study. As controls, patients presenting on the pulmonary outpatient clinic with problems other than interstitial lung diseases will be included. The prevalence of sensitization against antigens of mycobacteria, propionibacteria, silica, beryllium, aluminum and zirconium will be determined in sarcoidosis patients and non-sarcoidosis patients using interferon gamma release assay (IGRA). Both the classical test in diagnosing metal sensitization, the lymphocyte proliferation test (LPT), as well as an IGRA set up to detect metal sensitization will be used, and a comparison between those tests will be made. After two and four years of follow up, clinical outcome status in sarcoidosis patients will be defined. If trigger-related phenotypes in Dutch patients can be identified these subgroups can be used for further treatment-intervention studies.