Autosomal Recessive Severe Combined Immunodeficiency, (ARSCID)

In brief
Autosomal recessive severe combined immunodeficiency (ARSCID) is a severe autosomal recessive immunodeficiency disorder discovered in Jack Russell Terriers. Affected dogs are highly susceptible to recurrent infections and usually die at a young age.

Clinical overview
ARSCID causes severe immunodeficiency because of the low number of lymphocytic white blood cells involved in immune defense. There is a complete absence of IgM antibodies in serum. Affected dogs show incomplete development of the lymphoid tissue and are highly susceptible to recurrent infections and usually die at a young age secondary to infection, once maternal antibodies wane. Necropsy results show hypoplasia of all lymphoid tissues.

References

Online database
Online Mendelian Inheritance in Animals, OMIA (http://omia.angis.org.au/). Faculty of Veterinary Science, University of Sydney.

Scientific articles


Disease severity
Severe

Clinical signs
- Immunodeficiency
- Lymphopenia
- Lymphoid hypoplasia

Mode of Inheritance
Autosomal Recessive

Results of the genetic test are reported as follows:
- Clear
- ≠ Carrier
- ≠ At risk

Mutation(s) found in:
Jack Russell Terrier
Parson Russell Terrier
Working Jack Russell Terrier