



Dal - blood type in breeds beyond Dalmatians: A challenge in a previously transfused Lhasa Apso

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Objectives

Finding a compatible donor for a previously transfused Lhasa Apso sensitized to a blood type other than *DEA 1*.

Methods

A severely anemic Lhasa Apso with presumptive immune-mediated hemolytic anemia received type-matched *DEA 1+* blood and immunosuppressive therapy. After initially responding well, severe anemia recurred one month later.

Major crossmatching found the dog to be incompatible to all available *DEA 1 +/-* blood units (64 donors of different breeds) Therefore, adjusted immunosuppression without transfusion was instituted, and further crossmatching and Dal blood typing was performed against 16 Lhasa Apsos including one sibling.

Results

The patient was compatible to seven of the Lhasa Apsos including the sibling. Moreover, the anemic dog and seven compatible donors typed as *Dal-*, while the nine incompatible Lhasa Apsos were *Dal+*. In the meantime, the anemic Lhasa Apso responded well to immunotherapy and did not require any further transfusions. In this small cohort of 17 Lhasa Apsos in the North East of England (UK) we found 47% *Dal-* dogs.

Statement (conclusions)

Since this case was first seen in 2015, surveys from North America and Europe revealed that *Dal-* blood is not only found in Dalmatians, as initially described, but several other breeds. A survey from Germany showed 14% of Lhasa Apsos to be *Dal-*. While *Dal* typing has been restricted previously, a commercial card kit has just become available making not only *DEA 1* but also *Dal* matched transfusions possible; thereby avoiding *Dal*-related incompatibilities and acute hemolytic transfusion reactions in repeatedly transfused *Dal-* dogs.

