Typhoid fever in children: association with blood phenotypes ABO, Rh and MNSs Fiebre tifoidea en el niño: asociaciones de los fenotipos sanguineos ABO, Rh y MNSs.

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The hypothesis that blood phenotype B is associated to typhoid fever either directly or interacting with other phenotypes of the Rh or MNSs blood systems was tested. 256 children from the Northern Area of Santiago (Chile) with bacteriologically confirmed typhoid fever and 329 afebrile controls matched by age and gender from the same population, were studied. Association was found between phenotype RH3 and protection against disease for the whole group (OR = 0.67; p < 0.042) and for males (OR = 0.05; p = 0.014) although the gender-RH3 interaction was at the limit of significance. RH8 and Ss phenotypes were associated to increased susceptibility (OR = 1.83; p < 0.034 and OR = 1.56; p = 0.01, respectively). Controlling RH3 and Ss phenotypes by B, increased their effects (OR = 0.26; p = 0.04 and OR = 3.42; p = 0.026, respectively), but interactions did not reach statistical significance. These results show a susceptibility cline whose implications and applicability deserve further studies.