

Roussev et al. 1996 Am J Reprod Immunol. Apr;35(4):415-20.

Laboratory evaluation of women experiencing reproductive failure.

Roussev RG¹, Kaider BD, Price DE, Coulam CB. ¹Genetics and IVF Institute, Fairfax, VA 22031, USA.

Abstract

Reproductive life table analysis indicates that the majority of reproductive failures result from post fertilization failures, whether before or after implantation. It is important to have a set of tests to clarify the diagnosis of the reproductive failure so that appropriate therapy can be instituted. To determine the frequency of abnormal immunologic tests among women experiencing reproductive failure, 108 patients were evaluated for the presence of antiphospholipid antibodies (APA); lupus anticoagulant (LA); thyroid-thyroglobulin and microsomal antibodies (TGT); embryotoxic factor (ETA); and systemic CD56+/CD16- cells. The frequency of abnormal results obtained from testing for APA, LA, TGT, ETA, and CD56+/CD16- cells among 108 patients with diagnoses of recurrent pregnancy loss (RPL)(n = 45), unexplained infertility (n = 45) including IVF failure (n = 10), endometriosis (n = 10), premature ovarian failure (n = 5), and polycystic ovaries (n = 3) were compared with 15 normal controls. Seventy of one hundred eight (65%) women experiencing reproductive failure had at least one positive test, compared to 1 of 15 (7%) controls (P = 0.0001). Presence of phospholipid antibodies was the most frequently abnormal result followed by elevated CD56+/CD 16 cells. The prevalence of a particular abnormal test varied among the diagnoses. The most frequent abnormal test among women with RPL was an increased percentage of CD56+/CD16- cells (40%), followed by APAs (29%), TGT (9%), and ETA (7%). The most frequent abnormal result among women with unexplained infertility was the presence of APAs (42%), followed by CD56+/CD16- cells (16%), ETA (16%), and TGT (9%). APA, CD56+/CD16- cells, ETA, and TGT are useful tools to assist in the diagnosis of reproductive failure.