

The acrosome reaction-inducing activity of individual human follicular fluid samples is highly variable and is related to the steroid content

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In this study, we have evaluated the relationship between the acrosome reaction-inducing activity of individual human follicular fluid samples and their steroid content. Eighteen samples of follicular fluid were obtained during egg retrieval in six patients undergoing assisted fertilization. Motile spermatozoa were incubated in modified Tyrode's medium (26 mg/ml bovine serum albumin) for 20 h at 1×10^7 cells/ml. In a single experiment, aliquots of a semen specimen were simultaneously treated with an aliquot of each follicular fluid sample. The percentage of acrosome reacted spermatozoa was determined using fluorescein isothiocyanate-conjugated *Pisum sativum* agglutinin (FTTC-PSA) lectin. The fluids were also analysed by radioimmunoassay to determine the levels of progesterone, 17 β -hydroxy-progesterone, testosterone and oestradiol. The results showed that there was a positive, highly significant correlation between the acrosome reaction-inducing activity and the progesterone level of each