

Oocyte quality: dysmorphic patterns and cytoskeletal alterations in human oocytes

Giovanni Coticchio, Italy

With a significant frequency, oocytes display a number of morphological anomalies, some of which are suspected to affect oocyte quality and hence embryo development and newborn health. The notion that oocyte quality can be deduced from its morphology remains unfortunately controversial, regardless a plethora of relevant studies. Recent observations add a further layer of information on this matter, suggesting that specific dysmorphisms are associated with cytoskeletal anomalies that can potentially lead to chromosome segregation errors and perturbations of cytokinesis during extrusion of the second polar body or post-fertilization cleavages, with obvious implications for embryo viability.