

## Abstract

**Background:** The numbers of working women and couples that experience infertility treatment are increasing in Japan. However, many women struggle with balancing treatment and employment, and about half resign from their work. Although it is known that the quality of life (QoL) of women experiencing infertility is lower than that of healthy women or infertile men, research focusing on the QoL of working patients in Japan is still limited. In this study, we examined the longitudinal changes of health-related QoL during assisted reproductive technology (ART) treatment among working women.

**Methods:** In a prospective cohort study, we recruited 380 working women who were at the early stages of ART treatment from four medical facilities and via the internet. At baseline, we collected socio-demographic and clinical information and assessed QoL. After nine months of follow-up, we assessed the changes in QoL scores by employment status. Descriptive analysis was performed to investigate the QoL differences between full-time and part-time workers.

**Results:** Full-time workers had higher baseline QoL scores in role (physical) and bodily pain, and lower scores in general health compared to part-time workers. There were no differences in QoL score changes before and after the follow-up between full-time workers and part-time workers. Physical function scores decreased and bodily pain scores increased. Most health-related QoL subscales remained under the average of the general population throughout the follow-up.

**Conclusion:** Working women had low QoL even from the early stage of ART treatment and kept low QoL during ART treatment. Employment status itself did not affect the QoL score changes during ART treatment. More flexible support should be considered from the start of infertility treatment.

**Keywords:** Quality of life, infertility, employment, assisted reproductive technology, cohort studies

(281 words)