

# Annual Trends of Marriage Age and Duration of Postponing Parenthood in Japanese Azoospermic Couples



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## Abstract

### Introduction and Objective

Late marriage is a serious issue in Japan. The first marriage age of men and women in Japan in 2004 was 29.6 and 27.8 years old, respectively; this increased to 31.1 and 29.4 years old in 2017, respectively. Because aging reportedly has adverse effects on reproductive function, the effect of late marriage on azoospermic couples' age should be assessed to improve therapeutic outcome. In this study, we assessed the annual change in marriage age and duration of postponing parenthood (DPP) of Japanese azoospermic men.

### Methods

In total, 495 couples with obstructive or nonobstructive azoospermia who underwent surgical sperm extraction between 2004 and 2018 were included in this study. Clinical records were retrospectively reviewed, and marriage age and DPP were extracted.

### Results

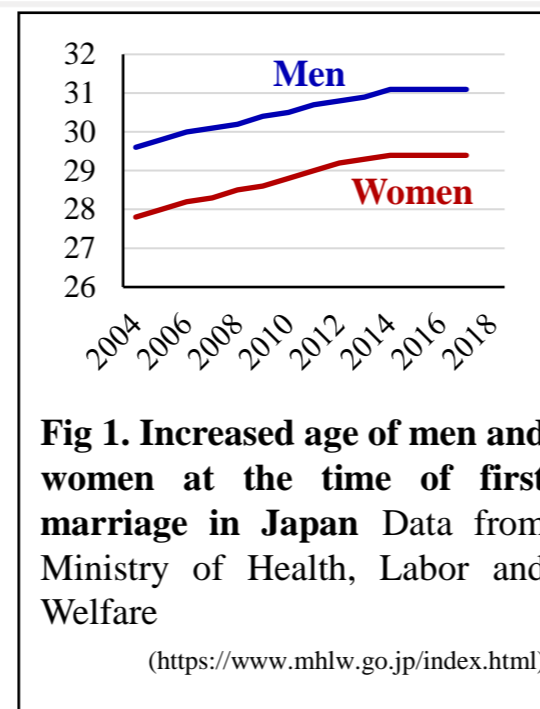
The marriage age of azoospermic men increased, but was not statistically significant, until 2013; however, the age of their wife was constant during the study period. Among 495 couples, 167 (33.7%) reported that they had a period of postponing parenthood. Of these 167 couples, the DPP significantly decreased with recent year ( $p < 0.01$ , Jonckheere – Terpstra test). Although the marriage age of men was not related to DPP ( $r = 0.037$ ,  $p = 0.63$ ), older women had significantly shorter DPP ( $r = -0.178$ ,  $p = 0.02$ ). These correlation coefficients were significantly different ( $p < 0.05$ ,  $z$  transformation of correlation coefficient).

### Conclusions

This is the first report assessing marriage age and DPP of Japanese azoospermic couples. We found increased marriage age only in men, indicating that late marriage in the general public affects the marriage age of azoospermic men but not women. This result suggests that women are more interested in earlier parenthood than men. Providing more information about male infertility to the general public can shorten DPP of azoospermic men, which could result in early therapeutic intervention for azoospermia.

## Introduction & Objective

- Late marriage is a serious issue not only in Japan but also in other countries.
- In Japan, the age of men and women at the time of first marriage increased (Fig. 1).
- The ICSI outcome using surgically obtained sperm decreases when maternal age exceeds 35 years
- We believe that aging is an avoidable factor.

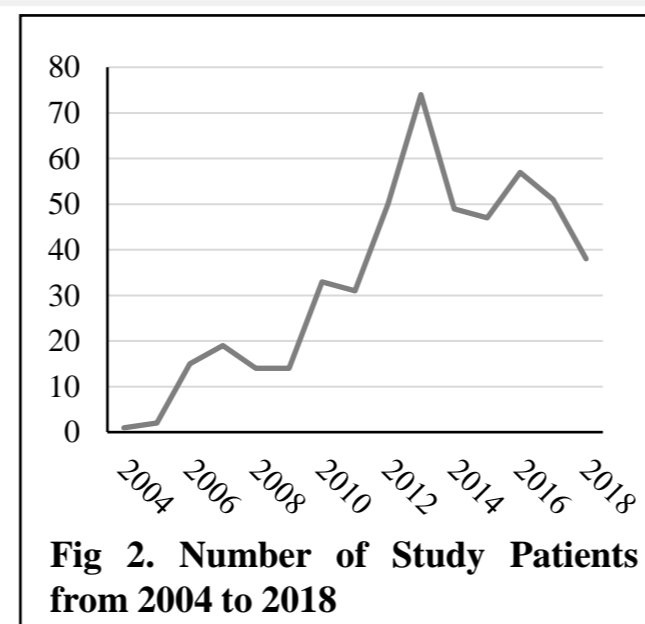


### Aim of This Study

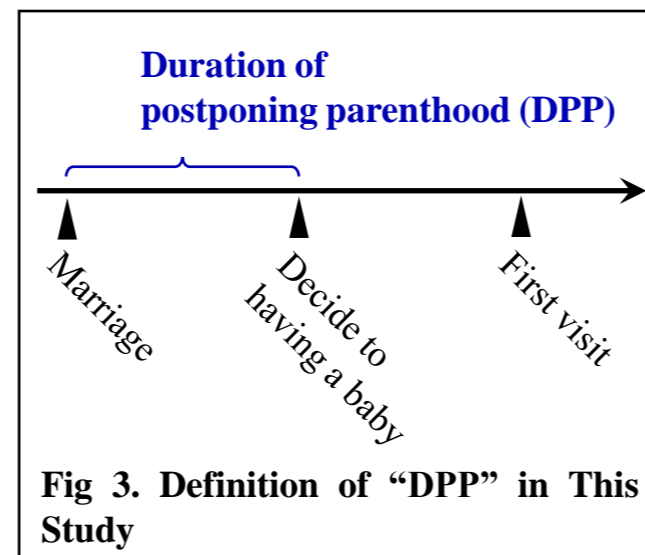
- To clarify the relationship between age of azoospermic men or their wives and tendency of late marriage in Japan.

## Methods

- [Subjects]
- Between 2004 and 2018
  - A total of 495 men with OA or NOA
  - The number of patients in each year is shown in the Fig. 2
  - Age at first visit to our hospital of patients and their wives were noted.
- [Methods]



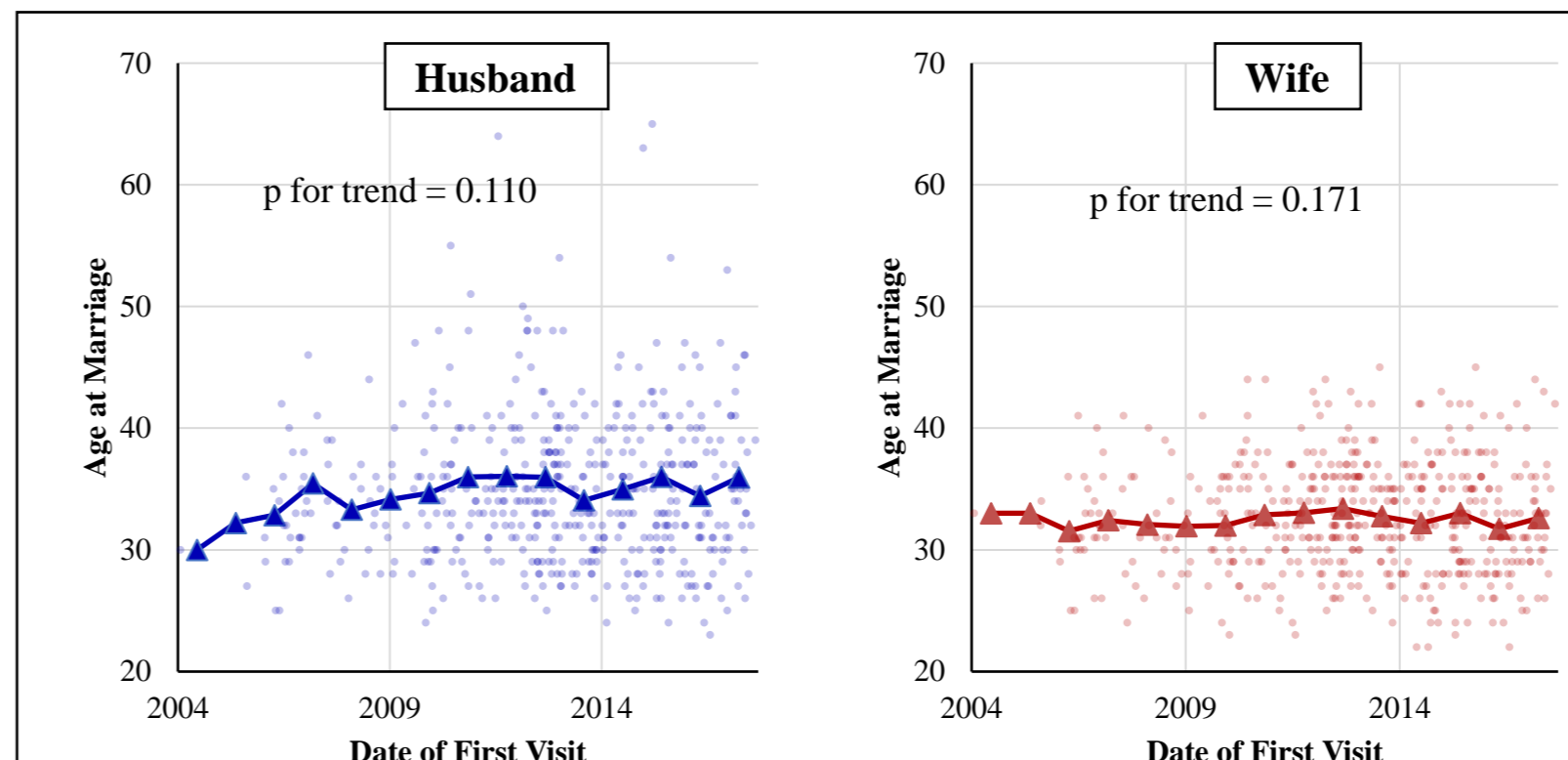
- In this study, duration of postponing parenthood (DPP) is defined as months between marriage and deciding to wish children (Fig. 3).



This study was approved by our Institutional Review Board at Nagoya City University Hospital (No. 60-18-0017) and written and informed consent was obtained from all patients.

## Results

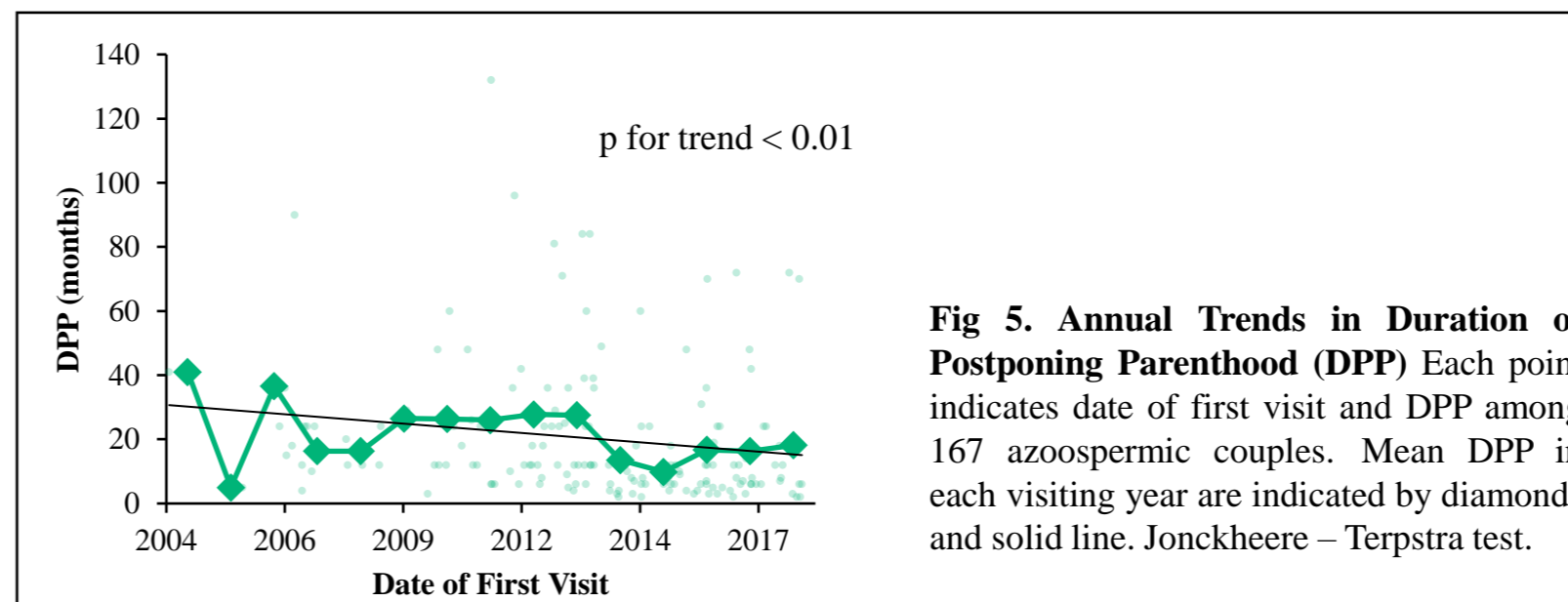
### 1. Annual Trends in Age at Marriage of Azoospermic Men and Wives



- Marriage of azoospermic men have increased
- However, the age of their wife was constant during the study period

### 2. Annual Trends in Duration of Postponing Parenthood

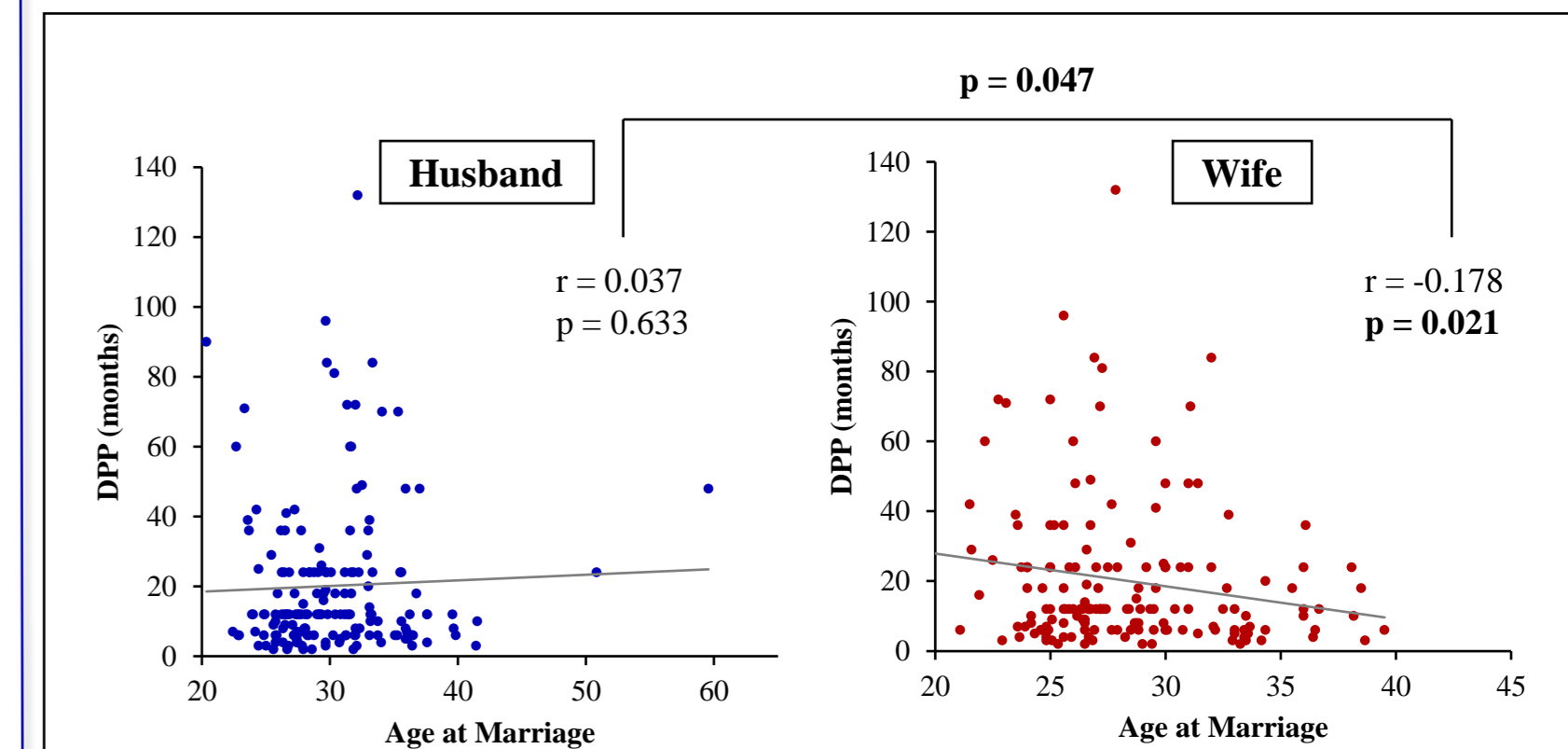
- Among 495 couples, 167 (33.7%) reported that they had a period of postponing parenthood



- Duration of postponing parenthood (~contraception) tended to decrease

### 3. Correlation between DPP and Marriage age

- To evaluate a difference in trends of DPP between men and women, we evaluated the correlation of marriage and DPP in husbands and wives separately.



- Marriage age of men was not related to DPP.
- Older women had significantly shorter DPP.
- These correlation coefficients were significantly different.

## Conclusions

- This study elucidated that:
  - Age of wife of azoospermic men did not increased despite general public did.
  - Interests in age and deciding parenthood is different between men and women.

Providing more information about male infertility to the general public can shorten DPP of azoospermic men, which could result in early therapeutic intervention for azoospermia.