

# Influence of aging on QOL of HIV-1-infected Japanese hemophiliacs

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## Background

Japanese hemophiliacs were infected with HIV-1 through contaminated blood products around 1983. Thanks to the effective therapies against HIV infection as well as hemophiliacs, prognosis of them has been dramatically improved for the two decades. An aging issue has arisen recently.

## Objectives

The aim of the present study is to document influence of aging on QOL of HIV-1-infected Japanese hemophiliacs.

## Methods

MOS 36-Item Short-Form Health Survey version 2 (SF-36v2)

•SF-36v2 is to measure health-related QOL (HRQOL: Health Related Quality of Life) with the scientific reliability and validity.

•SF-36v2 is for all diseases. Therefore, it is possible to compare HRQOL of patients with HIV infection and those with other diseases.

•SF-36v2 consists of a number of questions for measuring the eight health subscales.

•The 8 subscales are:

- |                          |                        |
|--------------------------|------------------------|
| (1) Physical Functioning | (5) Vitality           |
| (2) Role physical        | (6) Social Functioning |
| (3) Bodily pain          | (7) Role Emotional     |
| (4) General health       | (8) Mental health      |

•The 8 each subscale are converted to 0-100 points.

•National standard value is 50 points in general population in Japan.

To document influence of aging on QOL of HIV-1-infected Japanese hemophiliacs, we examined comprehensive QOL scale in 36 patients regularly consulting at AIDS Clinical Center, National Center for Global Health and Medicine with MOS 36-Item Short-Form Health Survey version 2 (SF-36v2).

An average score of general population of Japanese is 50points. Variables including age, severity of hemophiliacs, status of HCV, etc were also collected. Data were analyzed with SPSS19.

## Results

•The mean age of the patients was 43.6 years. Among 36 patients, the number of hemophilia A and B were 30 and 6, respectively. Severities of hemophilia were severe in 23 cases, moderate in 8 cases and mild in 5 cases. As to HIV infection, 35 cases were on antiretroviral therapy and 7 cases were diagnosed as AIDS. HCV infection was cured in 8 cases(Figure 1).

•Among the 8 subscales of SF-36, physical function, pain and health status were impaired significantly comparing with those in general populations. Notably, physical function was decreased by age ( $r = -0.38, p = 0.02$ ), especially over 50 years. The average value of physical function in hemophiliacs was lower than that in general population; 35.4 versus 51. When the values were stratified by age groups, those of hemophiliacs/general population were 40.1/54.4 in age of 30-39 years ( $n = 12$ ), 38.1/52.8 in 40-49 years ( $n = 17$ ), and 20.7/50.8 in 50 years and over ( $n = 7$ ), respectively(Figure 2).

Fig. 1: Subject N=36

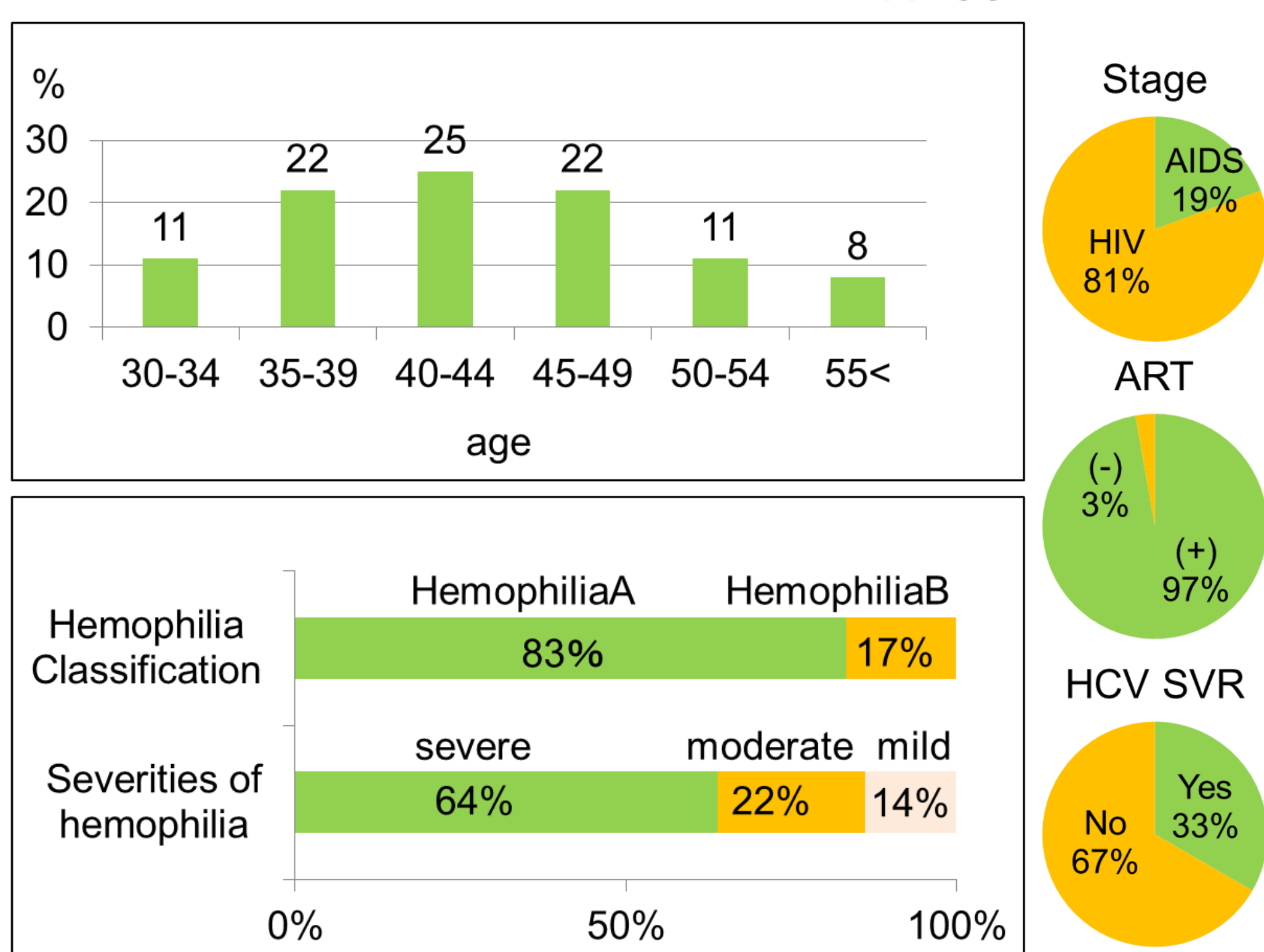
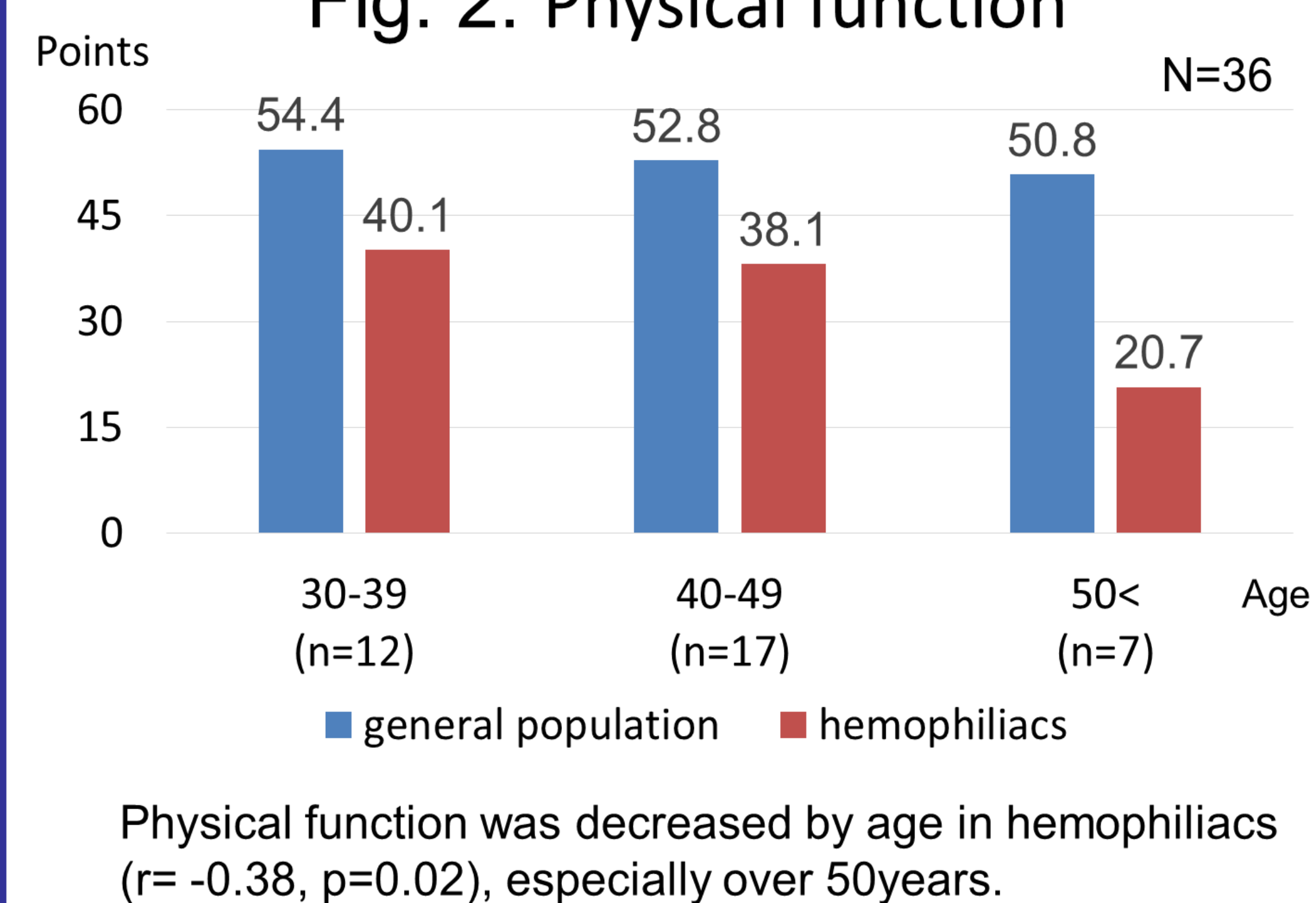


Fig. 2: Physical function N=36



## Consideration

Concentrated blood products have been available since 1983 in Japan. Therefore, patients aged over 50 tended to have severe joint deformity. In addition to the aging factor, severe joint deformity played an important role to decrease their physical function.

## Conclusion

Supporting system for elderly HIV-1-infected hemophiliacs should be developed in near future.

## References

Fukuhara S, Suzukamo Y. Manual of SF-36v2 Japanese version: Institute for Health Outcomes & Process Evaluation research, Kyoto, 2004. Ver3/2011.

