Non-invasive Prenatal Genetic Diagnosis (NIPD) in Japan

(Jun Murotsuki, tranlated by Aya Harada, June 7,

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Why do you think the first trimester screening has not been popular in Japan?

Historically, Japan without the influence of Christianity, has been of tolerant to termination of pregnancy, even to the infanticide (this was recorded by European priests visiting Japan in 16th century).

Since WW II, abortion has been acceptable. However, selective abortion following prenatal diagnosis, though legal, does not have popular support. Society is very sensitive to the "eugenic principle" and does not openly support termination. This seems to stem from reflection on World War II; we are suffering from similar sequelae to Germany.

Now there is an emerging need for prenatal diagnosis by pregnant women, but organizations supporting disabilities, ethicists and mass media are opposed to this, and the government is simply avoiding discussion on the issue

The current situation of NIPT in Japan

The Japanese Association of Obstetrics & Gynecology (JAOG, equivalent to the RCOG) has decided to follow the guideline from American Society of Human Genetics and American Society of Obstetrics & Gynecology. Eligible candidates are the women who belong to "high risk" groups such as advanced maternal age or previous obstetric history of aneuploidies. The remaining population are not offered the test.

The cost is 210,000 yen (£1,400), which is divided as follows: 190,000 yen for providing company and 20,000 yen for hospital)

Currently the market is occupied only by Sequenom, but Ariosa and Verinata are scheduled to enter in the future.

How is the response of obstetricians and public?

We have been offering amniocentesis and the quadruple test up to now, although they were never done officially. Obstetricians welcome the NIPT as they are aware of the demands for this. The official introduction of NIPT by the JAOG is milestone in Japanese obstetric history.

However, NIPT is only possible in accredited centres (currently 15) with available geneticists. This is

different to the previous situation where any obstetrician, though unofficially, could perform an amniocentesis and counsel the patient accordingly. Some of these obstetricians are now feeling resentful as they are not able to offer NIPT.

Problems

- 1. There is currently a negative media portrayal of NIPT, despite public awareness of the test increasing its demand. Prof. Murotsuki feels that obstetricians, mass media and public need to develop their "genetic literacy" to improve understanding of NIPT.
- 2. The number of centers offering NIPT (15) is far less than required. Currently women who live in Tokyo travel to Hokkaido (requiring air travel) or Sendai (3 hours) to have the test.
- 3. The amount paid to the hospital for each NIPT patient does not cover all the hospital 's costs. The counselling before and after the test and the blood taking, are all paid for from the 20,000 yen (£130). This means the geneticist only receives a small amount of money making them feel that they are doing 'volunteer work'.

Murotsuki Lab Top

Front Page

Access Countrer 672 (since June 7, 2013)