Activated autologous stem cell therapy a gray area in Indonesia

Niken Prathivi, The Jakarta Post, Jakarta | Feature | Wed, February 25 2015, 7:15

 Take five: Lab coats hang on a coat rack at the University of Connecticut’s (UConn) Stem Cell Institute. Stem cell research is believed to offer great hope in finding treatments to many diseases and illnesses, including heart attacks, strokes and spinal cord injuries. AFP/Spencer Platt

As an alternative treatment, stem cell therapy was introduced in Indonesia about 10 years ago.

A stem cell is a single cell that can replicate itself into many cell types, such as blood cells or skin cells; while stem cell therapy is the use of stem cells to treat or prevent a disease or condition.

People with certain ailments have turned to stem cell therapy to naturally replicate or regrow damaged cells in their own bodies to improve their health.

Speaking at a recent seminar, plastic surgeon Karina F. Moegni described stem cells in more detail.

“There are three types of stem cells: autologous — stem cells that come from your own body; allogeneic — stem cells that come from other people; and xenogeneic — stem cells that come from animals, which have been banned around the world.”

Karina said that bone marrow, brain tissue, blood vessels, skeletal muscle cells, heart cells and fat tissue were among several potential sources of stem cells.

As a surgeon, Karina said that she could treat patients with “activated autologous stem cell therapies” derived from a patient’s own fat tissue, which contains up to a thousand times more stem cells than bone marrow.

“It is also easier and painless to harvest the stem cells from fat — when the cells are also inactive,” Karina, who practices at the Unistem Clinic and Hayandra Clinic in Jakarta, said.

She adds that activated autologous stem cell therapy might help people with degenerative diseases, such as diabetes, osteoarthritis, osteoporosis and Parkinson’s disease; autism; cerebral palsy; as well as autoimmune illnesses, such as scoliosis, epilepsy, asthma and lung and heart illnesses.

The therapy is also applicable for anti-aging treatments, which Karina claims will give a natural result, as compared to Botox and face-lifts.

“Please do bear in mind that stem cell therapy is not magic. Some [patients] can get good results within six months,” says Karina. “Others need to wait for two years.”

Karina says that autologous stem cell therapy using fat tissue involves manually extracting fat from a patient, separating stem cells from unnecessary objects — for example the fat itself — and activating the stem cells with lasers before returning the stem cells to the patient.

“The extraction takes about 30 minutes, the next process needs about two hours, while returning the stem cells to a patient needs another 30 minutes,” she says adding that she directly injects stem cells into the target area for anti-aging treatments.

However, there is no specific dose for therapies involving activated autologous stem cells.

“You can never expect an exact number of cells in autologous stem cell therapy. What you get is what you inject,” says Karina.

On the recommended frequency of treatments, Karina said that no one in the world could answer that question yet — including her. However, she suggests that patients wait for at least six months to see if a treatment works.

Karina said that she would perform additional therapies after that period if a patient wanted better results.

On the regulations governing activated autologous stem cell therapy, Karina claimed that treatment with cells that are sourced from an individual without “manipulation” can be categorized as a treatment, instead of a medical procedure.

Therefore, Karina said, there was no need for regulations that would require clinical testing to conduct such treatment, based on prevailing practice in other nations.

“What is considered manipulation, among other things, is harvesting the stem cells in a laboratory,” Karina says. “As long as the stem cells come from the patient himself, it is considered a treatment.”

Karina adds that the practice of developing stem cell therapy using blood cells from the umbilical cords of other people stored at cord blood banks (as is done in Indonesia) could be considered alloegeneic stem cell therapy.

While Indonesia apparently does not currently specifically regulate alloegeneic (as opposed to autologous) stem cell therapy either, that is expected to change.

Contacted on the telephone, Marhaen Hardjo, a member of the government’s National Stem Cell Commission, noted that Health Ministry regulation No. 32/2014 limited stem cell use in Indonesia to 11 public hospitals.

Indra Bachtiar, a principal investigator for the privately operated Stem Cell and Cancer Institute in Jakarta, says that Indonesia is on the way to making such regulations in the next few years.

“We may be able to apply allogeneic stem cell therapy by 2017 or 2018,” says Indra.

In the interim, patients must make informed decisions in such therapy.

Marhean advised caution. “The Health Ministry does not have enough resources to act as the police in handling those clinics offering therapy without permit,” he said.