

Prof has month to find stem cell donor

City-Based Donor Let Down US Academic From Kerala

Sumitra Deb Roy | TNN

Mumbai: A Stanford University academic's search for a stem cell donor in the country of her origin has been dampened by last-minute donor attrition.

Last week, leukaemia patient professor Nalini Ambady, whose family and students have started a massive campaign across social media websites to hunt for a donor, beat the odds of finding a match in one in over 20,000. The Mumbai-based Marrow Donor Registry of India (MDRI) found the Human Leukocyte Antigens (HLAs) match in a software engineer. Coincidentally, not only did the donor hail from Ambady's hometown in Kerala, six out of 10 HLA parameters were also matching. But after initially giving consent and registering as a donor, the engineer refused to go ahead with the donation citing health and family problems. Several rounds of counselling by members of MDRI, including its founder head Dr Sunil Parekh, did not cut much ice. Parekh said

this was the sixth instance where the registry, started painstakingly to make a bigger pool of Indian donors, had failed to convert a match into a transplant.

HLA match refers to immunological compatibility, and doctors look for a match in at least 10 counts of crucial antigens to go ahead with a transplant. "Since we started the registry in 2010, there have been 55 requests for a match and we have managed to find six matches so far. But, barring one instance, the donors backed out in all cases," he said, adding donor attrition has emerged as the biggest problem in the way of unrelated stem cell transplants in the country.

While over 500 related stem cell transplants are carried out to cure leukemia, lymphoma and several other life-threatening cancers in the country annually, the numbers drop to almost one-tenth when it comes to transplants through unrelated donors. Also, in most of the unrelated stem cell transplants, the cells have to be imported

A GIFT OF LIFE

A LITTLE OVER 5,000
Sibling stem cell transplants carried out in India since 1983

25-50 Transplants were unrelated or were through donor stem cells

10 Centres in India (Navi Mumbai has 1) for unrelated transplants

₹15-20L Cost of purchasing stem cells from the US

₹45-50L Transplant cost (including import of stem cells)

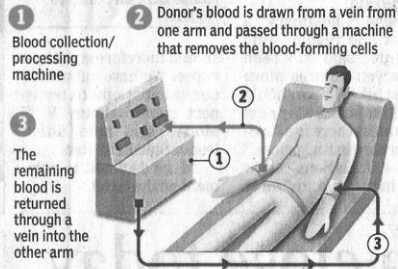
WHO CAN BE A DONOR

Healthy individual aged 18-50 years | Must not have any history of cancer, diabetes, auto immune disorders, lung or heart disease | Must not be overweight or obese, or at high risk for contracting infections like HIV

from the US. "Just because the cells are imported, the cost of transplant could go up to around Rs 50 lakh and therefore remains out of bounds for the majority," said Dr Navin Khattray of Ta-

STEM CELL DONATION PROCESS

- Stem cells can be extracted from the bone marrow or peripheral blood stream cells where the bone marrow is pushed out to the circulating blood
- In India, most voluntary donations are through PBCS, a non-invasive method similar to blood donation
- Once a donor's genetic typing matches with the patient, donor and family members are counselled
- After a donor agrees, more detailed tests are carried out
- The donor is given an injection for a week to boost stem cell growth
- Complete blood count tests are done everyday till the day of donation
- The procedure could take five-six hours, the donor can resume normal life the next day



ta Memorial Hospital's Advanced Centre for Treatment, Research and Education in Cancer, which is the only one to carry out unrelated transplants in Mumbai. "The solution to

this is obviously having a larger database of Indian donors," he said.

In global registries, too, ethnic groups, particularly Asians, are not too well represented, which majorly re-

duces their chances of finding a match. According to Dr Parekh, donor attrition only aggravates the problem, adding to the mortality rate. Donor attrition is usually due to apprehensions about the process and its long-term outcome. However, Dr Parekh said stem cell donation, like blood donation, has no long-term effects on the donor and cells are replenished in six to eight weeks.

However, Raghu Rajagopal, the co-founder and CEO of Datri, which has the biggest database of 36,000 registered stem cell donors, said even global registries face an attrition of about 50%. "But in their case, if one donor backs out, there will be three others willing to come forward," he said.

Datri has also been holding camps for Ambady in Kochi and plans to hold a series in different parts of the country. Ambady's family and friends, however, have appealed that only those who are serious about donating should come forward. "We want donors to make an informed choice and come forward. The basic tests cost us about Rs 2,500 per person and we are working within budgetary constraints," said Sudhir Rao, Ambady's friend.