Introduction

- Securing informed consent for unrelated hematopoietic stem cell donors is an important moral, ethical, and legal obligation.
- Moreover, two studies by Switzer et al. (2003, 2004) found that donors who felt less informed at various points in the donor recruitment, evaluation, and workup process were more ambivalent about donation and more likely to withdraw if asked.
- In 2003, the World Marrow Donor Association (WMDA) published a set of suggested procedures for securing informed consent of potential stem cell donors.
- Previously, we described an approach to implementing these guidelines at stem cell drives.
- The WMDA suggested procedures include providing the general public as well as volunteer donors at time of recruitment with information on the haematopoietic stem cell collection process and procedures.
- They further stipulate that, prior to stem cell collection, the volunteer donor should attend a consultation session where a physician provides a comprehensive overview of both collection procedures (marrow and peripheral blood stem cell collection) which can be readily understood by a layperson.
- Here, we describe the development of stem cell donation procedure diagrams for use at all stages of donor recruitment and consultation prior to donation.

Methods

- Diagrams were illustrated graphically and explained with accompanying text understandable to the layperson.
- Donors featured are ethnically diverse young-adult males, as these are the most needed donor groups:
  - Younger donors improve recipient survival.
  - Male donors are associated with decreased risk of recipient developing chronic graft-versus-host disease, and are more likely to donate sufficient CD34+ stem cells for transplant.
  - Younger and male are both less likely to be deferred for medical reasons or to experience complications with donation.
  - Ethnically-diverse donors are needed as they are underrepresented on Canada’s donor database, and because patients are more likely to find a match within their own ethnic groups.
- Ethnicity specific diagrams were approved by community representatives from the respective ethnic groups.
- Procedure diagrams were reviewed by two actively practicing transplant hematologists to ensure accuracy.
- The diagrams have been published online at www.stemcellclub.ca, and are available for the transplantation community to use.

Results

- Bone marrow and peripheral blood stem cell donation procedure diagrams were constructed, with versions featuring each of Aboriginal, Black, Chinese, and Indian young-adult male donors.
- The peripheral blood stem cell collection procedure diagrams highlight pre-procedure G-CSF administration and day-of-donation apheresis.
- The bone marrow donation procedure diagrams illustrate marrow being harvested from the posterior superior iliac spine via a Jamshidi needle. A zoom-in of the needle inside the marrow is shown.

Conclusions

- In summary, we describe the development of bone marrow and peripheral blood stem cell collection procedure diagrams for use at time of stem cell donor recruitment and consultation of donors prior to transplant.
- These diagrams facilitate securing informed consent, and their use may therefore reduce donor ambivalence and attrition.
- They are relevant to any group who raises public awareness about stem cell donation, recruits stem cell donors, or counsels donors prior to transplant.

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