Q&A on Vascularized Composite Allografts (VCAs)

What are vascularized composite allografts (VCAs)?

Vascularized composite allografts (VCAs) involve the transplantation of multiple structures that may include skin, bone, muscles, blood vessels, nerves and connective tissue.

How common are VCAs and how long have VCA transplants been conducted?

Transplantation of VCAs is becoming an emerging part of the transplantation field. According to the United Network For Organ Sharing (UNOS), there are currently 10 candidates on the VCA waitlist from six different centers:

- 8 upper limb: 5 bilateral (double hand) 3 unilateral (one hand)
- 1 head and neck: craniofacial (face)
- 1 abdominal wall

Since UNOS began sharing VCA organs nationally last July, there have been six VCA transplants:

- 3 head and neck: 2 craniofacial and 1 scalp
- 2 upper limb: 1 bilateral, 1 unilateral
- 1 abdominal wall

UNOS reports these numbers as of June 2015.

Is this the first VCA that LifeGift has been involved in?

This was the first scalp that LifeGift recovered within its DSA, which includes the greater Houston area, Fort Worth, Lubbock and Amarillo. It is not, however, our first VCA. In 2012, LifeGift coordinated the recovery of the right hand of a 22-year-old in Fort Worth, which went to a farmer in Indiana.

This was the first scalp recovered for transplant in Texas and the United States, according to UNOS as well as physicians at Houston Methodist and the University of Texas MD Anderson Cancer Center.

Is a VCA referred to as an organ or as tissue?

Due to their clinical characteristics, VCAs are more characteristic of organs as defined specifically in the National Organ Transplant Act of 1984 – primarily because they require blood flow by surgical connection of blood vessels to function after transplantation. In early July 2014, VCAs, specifically hands and faces, were added to the definition of “organs” used by the nation’s organ procurement agencies, such as LifeGift, for the purposes of donation and transplantation.
**Which entity regulates VCAs?**

The Health Resources and Services Administration (HRSA) regulate VCAs, just as they regulate solid organs, such as hearts, livers, lungs, kidneys, pancreases and intestines. HRSA oversees transplantation of vascularized human organs through the Organ Procurement and Transplantation Network (OPTN), which sets policies related to the procurement, transplantation and allocation of human organs. The OPTN serves the critical role of matching donor organs to potential recipients on a national basis.

**How are VCAs allocated?**

LifeGift follows the allocation policies set forth by UNOS and the OPTN when it comes to both solid organs (hearts, livers, lungs, kidneys, pancreases and intestines) as well as VCAs. Please visit [www.unos.org](http://www.unos.org) for more information on organ allocation.

**How do you educate the donor family on the process?**

- We clearly define and explain what a vascularized composite allograft is, the benefit to the recipient and exactly what may be recovered.
- We clearly communicate that prior general authorization by the potential donor to recover “organs” does not include authorization to recover a VCA.
- We strive to make sure that the next of kin understand that the donor will look very different after recovery depending on the VCA recovered. In this case, for example, the donor could not have an open casket funeral. In other donation situations, open casket funerals are routine.

**When did this case start and which institutions were involved?**

Collaboration among the institutions involved started about two years ago. These institutions included Houston Methodist, University of Texas MD Anderson Cancer Center, LifeGift and Memorial Hermann. Given the fact that Memorial Hermann is the source of the majority of our donors, we wanted to make sure they were involved from start to finish. The collaboration among these institutions was excellent and resulted in a successful outcome.

**When you register as a donor on the Donate Life Texas Registry, are you authorizing for the recovery of hands, faces and scalps?**

No, the Donate Life Texas Registry does not provide an opportunity to specifically authorize VCAs for donation and transplantation. Explicit consent for VCAs from prospective donors (or next of kin) must be as clear and meaningful as possible and separate from authorization provided on the registry for solid organs (hearts, livers, lungs, kidneys, pancreases and intestines); tissue (bone, skin, tendons, heart valves, etc.) and eyes (corneas).