



Subcutaneous vascular access ports (SVAPs) are long-term, surgically placed intravenous catheters that reduce the time, trauma, and discomfort associated with the placement of multiple short-term catheters. Access to the circulatory system is necessary in order to ensure the patient's safety during the multiple anesthetics required for animals undergoing radiation therapy. In many animals, there is difficulty maintaining this access throughout a course of therapy with multiple short-term catheters, because blood vessels can become scarred, collapsed, and inflamed when they are repeatedly used. SVAPs not only ensure a simple, non-stressful method to gain vascular access, but they also minimize the need to use multiple veins, thereby preserving these vessels for future use (such as for blood tests, anesthesia, fluid supplementation, or drug therapy).

The SVAP consists of a long, thin, soft, flexible tube that is placed into a large vein (usually in the neck or thigh), and an attached reservoir that sits in a pocket under the skin where drugs can be given or blood samples withdrawn. Placement and removal of the SVAPs require a brief surgical procedure lasting about 45 minutes each. Typically, the SVAP can be placed during the first radiation treatment and removed at the last treatment. In some animals, the SVAP can be left in place for subsequent delivery of chemotherapy. In most cases, SVAPs can remain in place for many months without any problems; however, they should be removed when no longer needed.

Minimal maintenance is required for SVAPs. There will be two small incisions (the fur will be clipped around these areas) that should be checked for redness, swelling and discharge, and you should discourage your pet from licking, chewing or rubbing at the sites. Stitches, when present, are removed in 7-10 days. If the SVAP will not be used for a period of time, you will need to have a brief visit at VHUP to have the catheter "flushed" and "locked" every 2-3 weeks in order to prevent a clot from blocking the tubing and making it unusable. During the course of treatment, this maintenance will be performed at each visit.

Most complications associated with SVAPs are mild and easily managed, and consist mainly of soreness and swelling around the incisions for a few days. There is a small chance of localized infection, which is treated with antibiotics, but which may occasionally require removal of the SVAP. Serious complications are rare, and may include generalized infection and blood clots.

Vascular access ports have been used for over 15 years in the treatment of human cancer patients, and their use is increasing in veterinary medicine. Overall, the benefits of SVAPs outweigh the potential complications for most animals undergoing radiation therapy, and have become a standard procedure at VHUP.

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