SWISS
SARCOMA
NETWORK

SOP: BIOPSY APPROACH FOR SUSPECTED SARCOMAS

Materials

- Biopsy needle eg Argon TruCore II 14G/16cm with coaxial needle 13G/11,1cm („white punch“)
- sterile set, Rapidocain 2%, scalpel, needle guidance

Planning

1. On imaging, determine target tissue / region in tumor: analyze images and define tissue most likely to be malignant (or active), depending on
    a. contrast enhancement
    b. most solid structure
    c. high metabolism in PET/CT
2. define entry point in cooperation with surgeon
    a. along (prospective) longitudinal incision as discussed with surgeon;
    b. always only after prior discussion of planned incision with sarcoma surgeon. If not possible, sarcoma surgeon marks biopsy canal on axial MRI section and marks incision on the skin of the patient.
    c. The entry point of the needle shall always be placed longitudinally –never horizontal- over the tumor, within the prospective incision.

Technique

1. localize tumor; use color doppler or ultrasound contrast medium to define vascularized tumor region.
2. define entry point
3. mark skin and take a photo of planned biopsy entry point with ruler. photo should be imported into patient record
4. disinfection of probe and skin and sterile draping
5. local anesthesia of skin and fascia, using a 20G needle
6. skin incision (2 mm) with tip of scalpel, starting at the entry point of local anesthesia
7. place trokar (13G) either with needle guidance or free hand. Advance needle to priorly determined spot with tumor. Confirm with either US or CT imaging.
8. take multi angled biopsies through trokar from single entry point into several directions (finger-like distribution) from same trokar needle tip position within the tumor
9. store ultrasound (or CT) images of tumor and of at least 2 needle positions
10. asservation of tissue in formalin/fresh frozen/on ice.
11. ultrasound report: record number and size of biopsies (i.e. 4 16G cylinders of 20mm length each)

Rules

1. Only one needle entry point is used, not several.
2. If there is a scar from prior surgery, always choose the entry point through this scar.
3. If there is no prior scar, prior exchange with sarcoma surgeon is mandatory.
4. Always avoid neuro-vascular structures.
5. in deeply seated lesions, never cross a muscular interval
6. insert the needle through the periphery of a muscle, not through the muscle center.

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