

# 18<sup>th</sup> Working Committee Meeting of the Scandinavian Sarcoma Group

*December 2-4, 2012, Malmö.*

## Imaging Working Group

Participants at the meeting:

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2012-12-03

1. Mikael Skorpil welcomed everybody to the meeting.
2. Conny Ström presented two cases with malignant nerve sheath tumours as an introduction to whole-body MRI. Sequences used in Umeå are cor STIR, cor T1, DWIBS (in total 45-50 minutes) for following up neurofibromatosis. He promised to mail out a short report on how to do it on the Philips MR-machine. Svein Halvorsen showed an article about DWIBS, and will perhaps mail it out.
3. A discussion about staging of multiple myeloma. Staging is handled by different sections at the different radiology departments, using different modalities.
4. Arne Lücke reported on whole-body MRI in Århus for following up hereditary multiple exostoses, with a protocol including a T1 FS post-contrast Dixon sequence. The sequence takes about 20 sec per section (7 sections in all for the whole body) which makes it very quick to perform. The entire WB-MRI takes between 45 and 60 minutes to perform, using a 3T Philips Achieva. About 30 patients are followed each year. One chondrosarcoma has been found.
5. Discussion about a proposed study on desmoid tumors. There was consensus to use MRI for tumour follow-up. It is important to design an imaging protocol. RECIST can be used for those tumors that can be measured. Mikael Skorpil will suggest to the study group that the imaging working group should participate in designing the imaging protocol before starting the study.

6. Mats Geijer gave more information and answered questions about chest tomosynthesis. A conventional lateral radiograph is also included in chest tomosynthesis.
7. Mikael Skorpil reported from the EMSOS meeting in Bologna 2012.
  - a. Desmoid tumors – a wait-and-see approach was discussed.
  - b. Glivec has some effect on PVNS.
  - c. MPNST can be similar to synovial sarcoma on histopathology, but differ in genetics.
  - d. There is probably a higher prevalence of benign notochordal tumors than reported.
  - e. Response in Ewing's sarcoma.
  - f. Chondrosarcomas can be surrounded by small islets of enchondroma.
  - g. Local recurrence of soft-tissue sarcoma: frequency of recurrence depends on surgical margin, time to recurrence depends on tumour grade.
  - h. In elderly, tiny pulmonary nodules are often benign.
  - i. Follow-up chest imaging should be stratified based on clinical utility of follow-up.
  - j. MRI of local recurrence of STS based on clinical symptoms only.
8. Presentations or posters at, EMSOS in Gothenburg 2013 or SSG in Helsinki 2013, was briefly discussed.
9. A review article about fatty tumours for Läkartidningen or a similar journal in Denmark or Norway was discussed. Mikael Skorpil, Mats Geijer and Otte Brosjö will produce a manuscript.
10. Conny Ström gave a presentation about metal artefact reduction in MRI, previously presented at the ISMRM (SEMAC sequence). Otherwise; use STIR, not spectral FS. Short TE (PD > T2). Metal objects parallel to B0. Switch frequency encoding direction if problems.
11. Diffusion weighted imaging. Its value for general MSK use is somewhat inconclusive. It is valuable in differentiating between benign and malignant vertebral compression fractures. Some reported using it as an "eye catcher" for pathology.
12. Mikael Skorpil discussed multi-center studies in general. They should use simple basic imaging protocols, have time to rescan inadequate sequences, use a coordination center, get the interest from the technicians for optimal imaging, check for other pathologies on acquired images, use phantoms to keep examinations consistent, both over time and over sites.

2012-12-04

Case presentations:

1. Cortical ABC
  2. Unclear (ABC?)
  3. Langerhans cell histiocytosis
  4. Cell-rich fibrous histiocytoma with atypia
  5. Synovial sarcoma (not bursitis)
  6. Alveolar soft part sarcoma
  7. Osteosarcoma + GCT
- Extra case: Geijer – dedifferentiated chondrosarcoma, Paget osteolytic phase

1. Dynamic CT of chondromatous tumors was discussed, and hopefully will Svein Halvorsen to the next working group meeting have made an evaluation of possibilities and difficulties, and present it within the group.

2. Boel Johnsen talked about PET-MRI and also about PET-CT. PET-MRI has difficulties with attenuation correction. A couple of articles will be mailed out.

3. Next SSG plenary meeting will be held in Helsinki on October 9-11 2013.

4. A suggestion was made that each participant briefly should present an article at the next working groups meeting and that the participant list for the whole meeting also should contain speciality.

/Mats Geijer, Mikael Skorpil