

Minutes IPSCSG Workshop 28 Oct 2019

Twenty-seven gastroenterologists/hepatologists (n= 14) and radiologist (n=13) participated in the workshop; three were linked by Skype (please see attendance list below).

Updates on ongoing projects and new study proposals

Study of the effect of different surveillance strategies for survival in patients with primary sclerosing cholangitis (PSC) (Annika Bergquist)

Data from 26 centres, from altogether nearly 3500 patients, have been completed and sent to Tobias Weismueller. After discussion the meeting decided to extend the deadline for delivery of data to 30 Nov 2019. Data is sent to tobias.weismueller@gmx.de

Action: Annika inform all centers that have previously shown interest but not yet have delivered data (and Tobias) about the extended guideline. Data will be analyzed as soon as the data set is complete with the aim to present an abstract at AASLD 2020.

Multiparametric MRI/MRCP in PSC (Emmanuel Selvaraj)

Presentation of the project “Multiparametric MRI of Biliary Diseases (MoBILISE)” with the aim to investigate if obtained quantitative data can be used for earlier diagnosis, staging disease severity, monitoring progression, and prediction of clinical outcomes in PSC. In collaboration with Perspectum®, 80 PSC patients and 40 healthy controls are investigated with MRI/3D MRCP, Fibroscan, Biochemistry and QoL questionnaires at inclusion and at 12 months. A dilatation score has been developed. Patients are followed up with regard to clinical events and mortality. After this exploratory phase the aim is to validate the findings in a longitudinal dataset and for this purpose they look for collaborations within the group.

Contact information: emmanuel.selvaraj@cardiov.ox.ac.uk

Action: Emmanuel prepares a short study plan and prepares information for data transfer

Early MRI changes in PSC (Roman Zenouzi)

Roman presented an update of this project, which aims to define MRI features of early stage PSC. They look for target patients with PSC who had an MRI with a normal cholangiogram (written report), who later developed classical (large duct) PSC. Synergies between this project and the “Detection of small duct PSC on MRI (Kristina Ringe)” were identified and Kristina will contribute with data. More MRI scans from PSC patients, but also from controls with and without IBD are very welcome and some may be contributed from Oslo.

Action: Roman prepares a short study plan, include more patients and present results on the next meeting.

Detection of small duct PSC on MRI (Kristina Ringe)

Preliminary data was presented. The purpose of this study was evaluation and description of clinical and MRI progression of patients with sdPSC and assessment of MRI features associated with disease progression to IdPSC. A group discussion followed and feedback was given including suggestion on relating the MRI findings to histology, expand the study with more patients and find synergies with the project “Early MRI changes in PSC”

MRI Scores for prediction of prognosis in PSC (Nora Cazzagon)

Nora showed her data on the association of ANALI scores and survival in PSC (Lemoinne, Cazzagon et al. Clin Gastroenterol Hepatol 2019) and additional data that will soon be published on the value of the combination of liver stiffness and ANALI score (Cazzagon, Lemoinne et al. Am J Gastroenterol).

Further planned studies include to test the **interobserver variability** between expert radiologists of different centers of the ANALI scores and to assess **prospectively** the prognostic role of the ANALI scores.

Action: Nora prepare a study proposal including a short study plan

Artificial intelligence to optimize MRI for PSC (Christoph Schramm)

Presentation of an early stage project performed in collaboration with physicist specialized in digital image analysis, Stefan Bonn, bioinformatician and AI specialist, and Jin Yamamura/Roman Zenouzi in Hamburg. The project aims to analyze MRI/MRCP scans (DICOM) from PSC with and without CCA, healthy and liver disease controls using deep learning algorithms. The project is open for collaboration, especially MRI from PSC-CCA and early stage PSC.

In case of interest: contact cschramm@uke.de

Action: Christoph prepares a short study plan to circulate and present at the next meeting

European Cholangiocarcinoma MRI Registry (Vincenzo Cardinale)

Vincenzo and Marco presented their project on correlates of the histo-morphology and MRI features in PSC and PSC/CCA. The aim is to compare paired estimates by MRI and histology of CCAs by assessment of tumor characteristics to confirm prognostic significance in a retrospective setting using serial radiology evaluations. The ask for collaboration and material from PSC patients that underwent OLT (N= 10) with available: - paired MRI (1.5T and 3.0T) of hilar/segmental bile ducts.

The also are building a radiology registry as part of a EU collaboration on CCA. People are invited to join.

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Action: Vincenzo prepares a short study plan per project to present on the homepage and ethics to be sent to interested centers

Role of Strict MRI Protocol for Detection of Cholangiocarcinoma in Primary Sclerosing Cholangitis (Kidist Yimam)

Kidist presented her project with the aim to compare the effect on different follow up protocols in PSC by assessment of outcomes between pre-2014 (2002-2014) vs. post-2014 (2014-2019) protocol.

Kidist was invited to participate with her data to the surveillance study and Annika will send information on this.

Summary of general discussion:

The meeting decided that:

- All study proposals (and ongoing initiatives) should be summarized in a short study plan (one page) and send them to ipscsg@amc.uva.nl to be published on the homepage

- A study plan template is produced by Annika and will be available for downloading at the IPSCSG homepage
- New proposals should be sent out the week before the next meeting so that people can prepare

Action: Annika makes a template. Organizers of the next meeting (Oslo) send out information prior to the meeting on preparations and new study proposals.

Group discussions on the use of contrast in MRI in PSC for diagnosis and surveillance

The role/value of contrast enhancement were discussed. After an introduction by Kristina Ringe different aspects of contrast were discussed in groups with the aim to identify knowledge gaps as a background for further studies and proposals.

The role of contrast for liver function

The group identified that the importance of relative contrast enhancement should further be investigated. A 3-step process was suggested; 1) standardization of measurement 2) 1 or 3 ROIs per segment 3) association to clinical endpoints

The role of contrast for diagnosis of CCA

A great variability between centers was identified. The study of CCA location (Kristina and Henrike) have at least partly investigated this and a manuscript is under way.

The role of contrast for prognosis

The clinical significance of peribiliary relative contrast enhancement was discussed and needs further study. The importance of gallbladder characteristics (incl cholecystectomy) was also discussed and motivates further study.

Side effects of contrast

The risk of repeated and regular use of extracellular and liver specific (Gadolinium) contrast was discussed. It is known that Gadolinium can lead to brain deposits but the clinical correlate is uncertain. There is a great variability in clinical practice. It was suggested that we should ask centers about the clinical practice, do a literature review and to spend time (whole meeting?) next meeting to further discuss this and write some recommendations.

Action: Emina summarizes current knowledge on the risk of contrast and send out a review to all centres about how and which contrast is used and report results on next meeting.

Next Meeting

Oslo Oct 2020 organized by Gunter Kemmerich, Aida Kapic Lunder, Mette Vesterhus and Kristin Kaasen Jørgensen.

/Annika Bergquist 2019-10-31

Attendants

(H-hepatologist/gastroenterologist; R – radiologist)

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