Report on the extramural tissue typers meeting, Mannheim, Germany, March 6, 2015

Three major topics were discussed during the 2015 extra mural meeting. First, Yvonne Zoet from the ETRL presented the updates and new functionalities of the web-based tool for external proficiency testing (EPT) data. The first round of entering data by participating centers has been completed without major incidents. In the coming months, improvements and new functionalities will be incorporated in the next version of the website. This is based both on the experience from the ETRL, as well as on suggestions made by the users. Also on the extra mural meeting, several suggestions for additional functionalities were made and the participants were invited to contact Yvonne whenever they have problems or ideas for improvement of the web-based tool.

The second topic, concerning a proposal to change the current ETRL EPT scheme, was introduced by Yvonne Zoet and Sebastiaan Heidt from the ETRL. Currently, the EPT scheme serves both Eurotransplant and EFI accreditation. While for Eurotransplant interpretation of histocompatibility data and the final conclusions are leading, for EFI, competence in the individual techniques is required. The ETRL therefore came with a proposal to change the current EPT scheme into a dedicated Eurotransplant and a dedicated EFI scheme. The EFI scheme will include antibody screening and detection, HLA typing, and cross match, with all techniques analysed separately and assessed based on consensus findings. Certificates will indicate which techniques the participating center uses and whether the laboratory fulfilled the criteria. For the Eurotransplant part, the ETRL proposed to develop a patient-oriented scheme. This will consist firstly of a paper-based scheme, in which patient data and all relevant histocompatibility data is provided, together with data from (a) potential donor(s). The participating centers have to interpret the data and come to a conclusion whether to transplant, as well as additional advice. Secondly, selected samples (sera and cells) from the EFI EPT scheme will be used as patient donor combinations, on which the participating centers should perform analyses according to their local protocol, and come to an advice.

The proposal for a new EPT scheme was well received by the participants of the meeting and several suggestions were made on what such scheme should look like. The current planning is that a pilot of the paper-based Eurotransplant scheme will be sent out in the second half of 2015 and that the actual sample-based Eurotransplant scheme will commence in the beginning of 2016.

The third topic of the meeting, introduced by Frans Claas of the ETRL, was on electronic communication of histocompatibility data between the laboratories, transplant centers and Eurotransplant. Currently, many centers still send their data to Eurotransplant by email or fax. The TTAC will discuss the possibilities of sending data digitally at a meeting in Mechelen at the end of March 2015, and the input from the participants of the extra mural meeting will be taken along. An important issue discussed at the extra mural meeting was that there needs to be a uniform way in which data is received by Eurotransplant. This first needs to be defined before it becomes clear what has to be done in the laboratories to be able to send those data. Essential is that Eurotransplant receives information on unacceptable mismatches as these will become leading in the definition of the degree of sensitization.

Additionally, Frans Claas discussed the reasons for the introduction of the mandatory entry of the virtual PRA (vPRA) for every patient on the waiting list, which will prevent patients to be listed on the waiting list as sensitized without any HLA specificities. A reliable vPRA based on all the unacceptable mismatches of a patient will prevent the occurrence of unexpected positive crossmatches. From the 1st of January 2016, the vPRA data based on unacceptable antigens must be entered and will be the only tool to indicate that a patient is sensitized. The performance of the laboratories with respect to the definition of unacceptable mismatches in relation to the occurrence of unexpected positive crossmatches will be monitored closely by Eurotransplant.

Also, Frans Claas discussed a new rule to determine the eligibility of a patient to enter the Acceptable Mismatch (AM) program,. This program is meant for highly immunised, difficult to transplant patients. Currently, patients can be entered in the AM program when having a (v)PRA of > 85% (relevant antibodies, mainly detectable in CDC). Data analysis has shown that patients within this group with a chance to be transplanted of ≥ 2% (based on HLA data from the Eurotransplant donor pool) were very rapidly transplanted, while patients with <2% chance to be transplanted waited substantially longer. Some patients are transplanted within one or two days after entering the AM program, which indicates that such a patient is not really difficult to be transplanted. Therefore, the inclusion criteria will be changed from a (v)PRA of > 85% to patients having <2% chance to be transplanted. To make this possible, the donor frequency calculator on the ETRL website will be updated. Patients already in the AM program not fulfilling these new criteria will not be taken out of the program. After 2 years this effect of this new inclusion criterion will be evaluated.

The extra mural meeting was concluded by a scientific lecture by Sebastiaan Heidt on monitoring of humoral alloimmune responses. The data presented included both a newly developed HLA-specific memory B cell ELISPOT for HLA class I and HLA class II, as well as phenotypic analysis of peripheral B cell subsets during stable graft function and rejection.

A selection of slides from the presentations can be found on the ETRL website. The Extra Mural Meeting in 2016 will be organised by Marcel Tilanus in Maastricht, the Netherlands. Exact date and time will be communicated at the end of 2015.