

## **Congenital, Cold and Corona!**

### **Nordic Congenital Upper Limb Anomalies in Svalbard, 7/3-13/3 2020**

The Hand Surgery Team from Oslo, Mona Winge and Ida Neergård Sletten organized this meeting. There was a faculty of renowned congenital hand surgeons and at the same time the group of participants was not too large, allowing for a lot of discussion.

In the weeks before, the world was starting to shake more and more, because of a gradually increasing number of cases of Covid-19 in Europe. The virus had caused a serious epidemic in China in January, but it was first during the first week of March that we realised, that the infection was spreading in entire Europe. Just days before the meeting, several participant had to cancel. The Italian participants were not allowed to travel, because of an already serious epidemic in their country. Surgeons from Switzerland and Denmark were not allowed to travel by their hospitals, because they wanted to secure all personal at home. Some Americans were afraid for what was happening in Europe. At that time there were hardly any cases in the US. We were down to about 31 of 37 participants.

All participants met at the Oslo Airport, in order to take the same plane out to Longyearbyen, Svalbard. In this international group with people who have know each other for years, it was difficult to avoid hugging and kissing, as recommended by the Health Care Authorities.

Arriving late in the evening at Svalbard, we had diner and stayed indoors. Not ready to face the -30° outside.

The next day, on Sunday the 8<sup>th</sup> of March, we had the first day of the meeting, with excellent talks about developmental biology and classification. It seemed like many experts are not completely convinced by the new OMT classification. The aim was to have a more biological organisation, but it seems that our knowledge is still too limited. Continuous modifications to the classification make it difficult to use the classification for research.

In the afternoon several units presented their cases of epidermolysis bullosa. Tragic disease and Stéphane Guerro from Paris seem to be the most experienced, because the disease is so rare. He is using dermal substitute with skin graft a lot to release the fingers, but they slowly disappear in the 'skin glove' or epidermal cocoon around the hand. Pinning of the fingers. Very fast healing and a lot of recurrence.

On Monday we had presentations in the morning about Arthrogryphosis, treatment of elbow, wrist and thumb by very experienced surgeons Gill Smith and Scott Oishi. Scott Oishi from Dallas was not able to attend the meeting but sent over his presentation. Important pearls were, that arthrolysis of the elbow is preferably done at age 1 to 1,5. After age of 8 the results are bad. Active transfers, Gill Smith prefers gracilis and Scott Oishi long head of triceps. Dorsal wedge osteotomy of the wrist tend to do better before the age of 7, but can be done at any age.

A pediatric neurosurgeon from Hamburg presented his experience with the Oberlin transfer in babies at a very young age. This might be a very interesting approach for those who don't have active elbow flexion. We would need to evaluate how many don't have active elbow flexion and how reliable the clinical evaluation is at that age. Another important point he made, was that asymmetrical AMC is very unusual and it such cases

an MRI of the spine should be done to make sure that there is not a tumour or syringomyelia.

Monday afternoon was free for taking a tour in the amazing environment around Longyearbyen. That is, the area where you are not allowed to come without a shotgun to defend against polar bears. I had booked a snowmobile tour. Fortunately, we got well dressed and there was heating in the handles of the snowmobile, because it was about 27° below zero. Fortunately, the sky was clear, and the views were amazing.

On Tuesday we had a full day of presentations and case-discussions again. The topics in the morning were radial longitudinal dysplasia and toe transfers. There is always a lot of debate about the preferred technique for 'centralisation' of the hand in RLD, but it seems more and more consensus in this group to do a soft tissue distraction, before a centralisation/radialisation. Max Mann presented also his case of distraction lengthening of the ulna. He does max 5cm, so no plate is required. Might repeat it at later age. Scott Oishi presented a more minimal surgery, with a bilobed flap to improve cosmesis. It seems like they have been disappointed by the amount of recurrences. The Paley technique of ulnarisation is mentioned, because many parents ask for it. The technique is quite aggressive with ulna osteotomy and putting the distal ulna on the radial side of the carpus. Colleagues have seen complications, mainly of very short forearms, as the growth has been completely disturbed.

Pasi Pavilainen presented the Tampere experience with free MTP transfer and gave good tips and tricks. Long term issues seems to be MTP joint dislocation and an uneven growth of the MRP joint and the ulna. Distraction lengthening can be required at a later age.

The colleagues from London and Switzerland showed how they do doppler ultrasound to evaluate the vascular system in the foot before a toe transfer.

Tuesday afternoon we had a good discussion about multiple hereditary exostoses. Andrea Jester had done a literature review. It seems like only Hamburg and we are doing early excision of the exostosis at the distal ulna to preserve better growth in the ulna. We have started reviewing our patients in Gothenburg and it seems like many colleagues are very eager to hear about the results. I decided to make sure we can present our results at the next meeting. Another important point was the risk of malignant degeneration. This is low, but several centres recommend regular whole body MRI from the age of 16.

On Wednesday morning the main subject was hand deformities in Apert syndrome. Wiebke Hulsmann and Max Mann from Hamburg have developed a great experience and treatment strategy over the years, which we also have adopted for the larger part in Gothenburg over the years. Interesting new point was a longitudinal fixation of the fingers, if the distal phalanges of dig 3 and 4 are very slim. A modification of the soft tissue distraction. Max had also organized that we could have a workshop on how to use the cube-fix for soft tissue distraction. This was very nice and useful.

Wednesday afternoon was again free to take a tour and I booked the ice caving tour. Again, the sky was clear, with beautiful scenery in the sun, and temperature of 30 below zero. Walking around inside a glacier is an experience to never forget.

On Thursday we had the last day of lectures. Already during the day news was spreading that Norway was about to close their borders because of the Corona outbreak. Rumours about quarantine rules were going back and forth. Maybe everyone returning to Norway

would have to go in 2 week quarantine or only foreigners... We didn't know, but we were anyway reliant on one airplane picking us up on Friday and even though far from the mainland, we were on Norwegian territory.

We still had a very good day with lectures the whole day. In the morning the subject was thumbhypoplasia. Good talk by Gill Smith on Blauth II and IIA. Take home message that CMC can become instable with time after opponensplasty. Eaton ligamentoplasty after growth. Scott Oishi's talk on pollicisation. Mainly very enthusiastic about the 'Scottish Rite' incisions, also many other participants had changed their technique to this type of incision. The Dallas group had 26% of growth arrest in the proximal phalanx, the Hamburg group did not have that. Explanation? Vascular supply?

In the open discussion it becomes clear that both the surgical details and the postoperative care varies highly between clinics. Probably no long immobilisation is required. Birmingham does only 3 weeks. What to do with the metacarpal? Ulrich Mennen removes completely, but nobody at the meeting does that. Pasi Pavilainen showed very different shapes of the new CMC joint and some dislocations as well. The organisers had asked all participants to bring their cases of mirror hand for discussion. We did not have any in Gothenburg and also the other participants had very few. Most experienced were Stephane Guerro from Paris and Wiebke Hulsemann from Hamburg and Gill Smith from London. Some suggestions: removal of the lateral proximal ulna. Leads to migration? There can be an ossified biceps tendon in the upper arm. Don't forget the shoulder. This can also be dysplastic. In the hand the common pattern is 4 ulnar fingers and 3 radial fingers with 3 phalanges. One of the radial fingers is pollicised, mostly the third one. The wrist commonly has a flexion deformity and the extensor tendons might be hypoplastic. Explore and try to transfer a flexor to the dorsum of the carpus, or base of metacarpal.

After good discussions the final day of the program was finished and we had a nice dinner. The next morning at breakfast, rumours were buzzing. Norway was going into a lockdown. For a while we did not know if our flight would be cancelled. We found out that the departure of the plane from Oslo was delayed, so we would have a long delay in any case. Most of us had connections from Oslo to our hometown on Friday evening, so we knew that many of us would get stuck in Oslo. We were three colleagues from Gothenburg and we managed to rent a car, so we could drive from Oslo to Gothenburg, no matter how late it would get. Finally, our plane did arrive and we took off with about two hours delay. Many of the meeting participants had to stay overnight in Oslo, but could continue their trip home the next day. We drove home to Gothenburg on Friday and arrived before midnight. I myself was supposed to travel from Oslo to my family in Belgium. I booked another flight from Gothenburg to Paris on Saturday morning and got a ride to my hometown in Belgium. Just a few days later Belgium announced a lockdown and the schools closed.

All by all the meeting was fantastic, the visit of Svalbard amazing and the trip home exciting. A meeting which I will never forget!

I would like to express my gratitude to the Gabriëlssons Fond to make this possible!

Katleen Libberecht

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