ISPAD Allan Drash Fellowship Report

Recipient: Gul Yesiltepe Mutlu, MD- Turkey

Host Center: Stanford University, Department of Pediatric Endocrinology and Diabetes

Mentors: David Maahs & Priya Prahalad

Duration: 6 weeks (September 15th to October 30th), 2021

Introduction

In our center, Koç University Hospital, Turkey, we have been following up about 1300 children and adolescents with type 1 diabetes. Our center is a referral center in Turkey, and we serve not only the patients who are followed by our team but also the other children with diabetes who live in other regions of Turkey through online education programs and camps. This program is a very important opportunity to improve our team's work and provide a better life for children with diabetes who live in Turkey.

I feel and know that these 6-week visit will be a milestone in my life which I found an opportunity to see how a world-known pediatric diabetes center works and observe how to carry out qualified research in the field of diabetes technology. Not only my mentors but also the other members of team warmly welcomed me and made me feel comfortable. It was also great to see how the team works on inequality and come over the social problems which people with diabetes face every day.

Activities

Observations and experiences

Since the COVID 19 pandemic began, an important part of outpatient services has been provided online (Tele health) in Stanford University. During my stay, approximately 50% of the outpatient services and all the meetings were held online. Physicians provide outpatient services only 2-3 days a week spend rest of their time to perform their research-related tasks. Each physician sees an average of 10 patients a day during their clinic-days. When a child with diabetes visits the clinic, it is ensured that she sees not only the physician but also other members of the team on the same day. In other words, diabetes educators, dietitians, and social workers, if necessary, see the child and family. The patients followed in the department are ethnically diverse and from different socio-economic level groups. I think that the diversity is a great power, and the team is lucky to experience to serve people from different cultures. It was good to see that even children who do not have an economical support to use diabetes technology could have pumps and sensors through 4-T project which is carried out by Professor Maahs and his team. I wish that it could be possible for all children with diabetes in my own country as well. In addition to 4-T study to see Project Echo which is a structured platform which aims to help the health providers who serve people with diabetes in limited resources was inspiring.

Unlike the situation in our country Turkey, children with obesity are referred to the pediatric endocrinology unit only if they have prediabetes or diabetes. There is a separate center for obesity and the coordinator of this center is a general pediatrician. They allowed me to have an online meeting with the administrative officer of this center and he briefed me on how their center works. I observed

that they use weekly GLP1 analogue preparations, which are not yet available in our country, in the treatment of type 2 diabetes if the health insurance covers these medications.

Another interesting experience for me was joining the 'transgender clinic'. The director of this clinic is Dr. Tandy Ave. The follow-up of transgender adolescents is carried out in this clinic together with pediatric endocrinology and child psychiatry. While applying hormone therapy, the decision of the child and his family is acted upon, a council decision is not required which is different from my own country. I observed that transgender adolescents are well accepted by their friends in family, school, and social environments.

Outpatients Clinics and Inpatients Clinical Rounds

I was lucky to spend time with all the team; doctors, diabetes educators, research assistants as well as the social worker involved in diabetes care. Besides having observed type 1 diabetes clinic, I had a chance to see patients with Type 2 diabetes. It was surprising for me to see so many children and adolescents with type 2 diabetes, fortunately type 2 diabetes is still not very common in childhood in Turkey. I had the opportunity to accompany Professor Maahs and Dr. Prahalad to all in-person outpatient clinic days and evaluate children with diabetes together with them. I also attended tele-health visits from home, it was helpful to see how they manage patients remotely. We evaluated together the reports of the pump and continuous glucose monitoring system at each visit. I had the chance to see the Tandem-Control IQ hybrid closed loop system closely, which is not available in our country, and to learn how to use it. I had the opportunity to establish direct dialogue with patients and their families. I attended teachings at the time of diagnosis, and pump and CGMS trainings. I was able to shadow diabetes educators and physicians' routine throughout their entire Pump and CGMS meetings. I was impressed by the fact that the whole team paid great attention to the use of technology and explained the effects to children to make their lives easier.

I attended inpatient rounds with the responsible attending physician and fellow once a week.

Team Meetings

I had the opportunity to present at clinical meetings held weekly and observe the team approach. These meetings generally had 4 titles.1. Presenting the patients seen inpatient clinic to the whole team by the fellow 2. Presenting the cases that the specialists saw in the outpatient clinic and wanted to consult. 3.Didactic presentations by fellows or attendings. 4. Discussion of administrative issues such as budget etc. In the last week of my visit, I gave a presentation on my home-team and our activities in this meeting as well. There are 'endocrine grand tour' meetings online once a week. World -known speakers from different centers also attend these meetings as speakers. One of them was Richard Auchus and he gave a very interesting talk titled Innovations in the treatment of congenital adrenal hyperplasia.

Research meetings

A lot of research was carried out in the department while I was there. I was lucky to attend research meetings led by emeritus Professor Bruce Buckingham who conducts many technology research, including new systems such as the Omnipod 5 and the bionic pancreas. I also had the chance to take part in the recruitment stages of CleVer study. In addition to these technology study meetings, I attended 4T study meetings every week and observed how they conduct this great project as a team which includes the physicians, diabetes educators, sports physiologist, staticians and biomedical engineers.

What I learnt from my visit

Diabetes management and clinical research is a team-work, and every member of the team is indispensable. Use of technology makes life with diabetes easier, however human factor is still the most important thing in diabetes care. Diabetes teams need to make an effort for people with diabetes who live in limited resources who cannot reach diabetes care.

Acknowledgement

I would like to thank ISPAD for providing me this great opportunity to have a 6-week visit in Stanford University. I am grateful to Professor David Maahs and Priya Prahalad, they were always very helpful and friendly during my all visit. I also would like to thank Professor Bruce Buckingham and doctors Laya Ekhlaspour and Hilary Seeley as well as all the team members for their hospitality. Lastly, I appreciate my own team and 'Koç University' and Turkish National Pediatric Endocrinology and Diabetes Society for their endless support during my visit and career.

Warmest Regards,
Gul Yesiltepe Mutlu, MD
Department of Pediatric Endocrinology and Diabetes
Koç University School of Medicine,
Koç University Hospital
İstanbul, Turkey