



# OBSERVERSHIP @ UPMC CHILDREN'S HOSPITAL OF PITTSBURGH

By Dr. Vikrant Sood

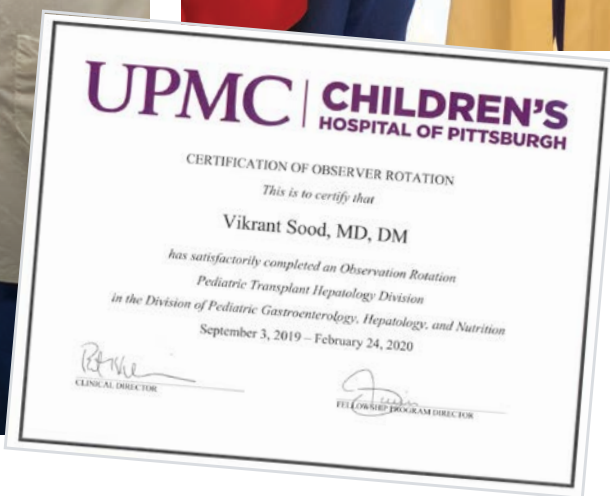
THE INDIAN SUBCONTINENT, ACCOUNTING FOR ALMOST ONE-FOURTH OF THE WORLD'S POPULATION, has an expectedly high burden of liver diseases, especially chronic viral hepatitis. As per conservative estimates, less than 5% of the patients requiring liver transplant for various illnesses actually undergo this procedure annually in India, mainly due to financial constraints and donor availability (programs being predominantly living-donor-related). Unlike the developed countries where medical expenses are taken care by personal insurance policies, the majority of the population in this part of the world depend on the out-of-the-pocket expenditure for the same. As is the current scenario in the Indian subcontinent, liver transplant facilities are restricted to only the large private sector hospitals. This lack of affordable access to liver transplantation is the

major hindrance to goal of universal healthcare. This happened because previously there were no government-sponsored liver transplant programs. At my present institution, the Institute of Liver and Biliary Sciences, the state government established the first state-sponsored government-run public sector liver transplant program in the entire region which subsequently succeeded in allowing even the marginalised sections of the society access to quality healthcare including Liver Transplantation at nominal prices. With a long term aim of working in a academic setup, I wished to steer my career path in a way that has a balanced mix of research and clinical work.

Thus, it was a dream come true when I was selected by the ACG for a six-month training in pediatric transplant hepatology in the Liver Transplant Unit at the prestigious UPMC Children's

Hospital of Pittsburgh (CHP), Pittsburgh, which is one of the foremost and premier units in the entire world, and their forefathers were the pioneers in building up the concept of the field of Pediatric Liver Transplantation. With experience spanning more than four decades, the unit has performed >1,800 pediatric liver transplants and is the largest living donor transplant program in the entire country with long term post transplant survival rates exceeding 95%.

During the observership, I attended the daily inpatient and outpatient units where pre- and post-transplant patients (including cases of both liver and multivisceral transplants) were being managed; detailed discussions involving difficult post transplant situations like recurrent malignancies, PTLD, recurrent or refractory rejections, etc. were real eye-openers. I also attended the weekly transplant pathology and multispecialty transplant board meetings where various



wonderful mentorship, commitment and willingness to go the extra mile just for me. Also, a special thanks to fellows (Dr. Sarah Henkel, Dr. Arpit Amin and Dr. Laura Duque Lasio) and nurses/coordinators (including Ms. Terry Trimble) I worked with for their constant support and guidance. All this would not have been possible without the encouragement and support of my mentors at my parent institution, Prof. S.K Sarin and Prof. Seema Alam.

It was a life-changing experience, indeed, which I am sure would positively shape all my future endeavours. Thank you ACG for this wonderful opportunity.

Photo top left: Dr Chen (Observer, Transplant Surgery), Dr Arpit Amin (Fellow, Transplant Surgery), Prof. Ajai Khanna (Tranplant Surgery), Prof. Patrick McKiernan (Hepatology), Dr. Yu-Tang Chang (Observer, Transplant Surgery), Dr Sarah Henkel (Fellow, Transplant Hepatology), Myself, Dr James Squires (Hepatology), and Prof. George Mazareigos (Transplant Surgery). Photo top right: Ms. Beverly Kosmach (Clinical Nurse Specialist, Transplant Services), Dr Arpit Amin (Fellow, Transplant Surgery), Dr Armando Ganoza (Transplant Surgery), Prof. Robert Squires (Hepatology), Myself, and Ms. Tamara Fazzolare (Physician Assistant, Transplant Services)

aspects of pediatric liver transplant would be discussed in detail. During the interaction with the transplant unit, I was exposed to various novel transplant concepts, including immunogenetic basis (including biomarker development) for rejection after transplant. I was also kindly allowed to take part in some of the ongoing projects in the department including study of genetic variants in subjects with rejection vs. tolerance in liver transplantation using whole exome analysis, and review of living related liver transplantation in metabolic liver diseases in children.

Simultaneously, I was also given the opportunity to gain some clinical experience in the management of metabolic liver diseases in children in the division of medical genetics including pre-, peri- and post-liver-transplant management. In this regard, I was exposed to the huge variety of

these disorders including diseases like urea cycle defects, mitochondrial hepatopathies, etc. I also spent some time in the metabolic lab where I observed the lab techniques of metabolic testing (amino-acid/organic acid/carnitine-acylcarnitine analysis) including their interpretation. Also, I learnt the basics of genetic testing and genetic counselling which was really helpful in the learning the diagnostic aspect of metabolic diseases.

I would always be grateful to my teachers at the CHP (UPMC): Prof. Robert Squires, Prof. Patrick McKiernan, Dr. James Squires, Dr. Veena Venkat (Pediatric Hepatology), Prof. George Mazareigos, Prof. Rakesh Sindhi, Prof. Ajai Khanna, Dr. Kyle Soltys, Dr. Armando Ganoza (Transplant Surgery), Prof. Gerard Vockley, Prof. Uta Lichter-Konecki, Dr. Lina Ghaloul Gonzalez (Medical Genetics) and Dr. Steve Dobrowolski (Clinical Biochemical Genetics Laboratory) for their