

Sidra Medicine Announces Successful Completion of Qatar's First Conjoined Twin Separation Surgery

Qatar Foundation institution breaks new ground less than one year since opening inpatient facility

Doctors at Qatar's first specialist women's and children's hospital, [Sidra Medicine](#), have [successfully separated conjoined twins](#), marking a first for the country. The surgery establishes an alternative for patients who previously had limited choices for the successful treatment and care of complex pediatric diseases in the region.

Globally, conjoined twins occur once in about every 200,000 births. The twins that were separated at Sidra Medicine, were conjoined at the liver and lower sternum - considered one of the riskier types of fusion, as each baby needs a fully functional liver and gastrointestinal tract of their own without compromising the other. Many such twins have additional malformations and a substantial proportion of them do not make it to birth. Omphalopagus twins, those who are connected at the belly and liver, are some of the most complex to separate.

The twins' mother was seen during her 29th week of pregnancy at Hamad Medical Corporation (HMC), while on a visit from Mali to Qatar. After confirming that the twins were conjoined and separation was possible, a multidisciplinary team from HMC and Sidra Medicine arranged for the delivery and care for the country's first conjoined twin separation.

Soon after birth, the twins were transferred to Sidra Medicine, under the care of a highly specialized team of neonatal ICU physicians, nurses, pediatric surgeons and allied healthcare professionals.

Led by Dr. Mansour Ali, Chair of the Department of Pediatric Surgery and Dr. Abdalla Zarroug, Division Chief of Pediatric General and Thoracic Surgery, the four-month-old male twins were separated by a team of 10 surgeons and anaesthesiologists, during a nine-hour procedure that went without any complications.

"By successfully separating conjoined twins, one of the most complex surgical procedures there is, we are proud to showcase the calibre of our multidisciplinary teams less than a year since we opened our inpatient facility. The surgery is both a milestone for the hospital and the healthcare sector in Qatar," said Dr. Mansour.

Less than 10 days after separation, Hamad and Tamim are recovering and are back to normal feeds and expected to live normal, independent lives.

"Combined with access to the latest technology to support pre-surgical planning and delivery, we have the advantage of having some of the world's top pediatric specialists in general and thoracic surgery, urology, craniofacial, plastics, anesthesiology and robotic surgery. The fact that we are able to use these resources to offer pediatric surgical services that did not exist in the region before, is the reason we are here. Our goal is offer hope to our surgical patients when there may have been no hope before," said Dr. Zarroug.

The surgery was planned and rehearsed for months with a full complement of over 150 medical and support staff undergoing over 30 hours of simulation to minimize the risks and improve patient outcomes. Sidra Medicine's state-of-the-art 3D printing technology helped create a model of the boys' abdomen and liver to assist with pre-surgical planning.

The father said: "We tried to explore international options for surgery until we found out about Sidra Medicine. We are immensely grateful to the Government of Qatar, Hamad Medical Corporation and Sidra Medicine for their tireless efforts to save the lives of our boys."

Dr. Abdulla Al Kaabi, Chief Medical Officer, Sidra Medicine: "What a proud moment for the team at Sidra Medicine and the healthcare network in Qatar. Today's case is also indicative that we remain committed to our mission to provide children and women with outstanding tertiary healthcare services in an innovative and ultramodern facility specially designed to promote healing. The success of this surgery is a testament to the investment made by the State of Qatar in medical services, people and technology, that allows a hospital like ours to offer cutting-edge patient and family centered care. It also establishes Sidra Medicine as a key contender in the region to handle complex pediatric diseases."

Dr. Helmut Hummler, Chief of Neonatology, Sidra Medicine: "This success would not have been possible without many weeks of extremely dedicated medical, nursing and allied health staff caring 24/7 for these twins in our Neonatal ICU. This is a true landmark story showcasing the extensive collaboration between Sidra Medicine and Hamad Medical Corporation."

Dr. Michael Levis, Division Chief of Pediatric Anaesthesiology, Sidra Medicine: "There were three critical components that helped us achieve a successful outcome: first, careful planning; second, anticipation of and preparation for any conceivable complication especially via our simulation sessions; third - and most importantly - clear communication between surgical, anesthetic, and nursing teams, all of which culminated in an incredibly robust and healthy team dynamic."

Dr. Karen Bradshaw, Snr. Attending Physician, Radiology and Body Imaging, Sidra Medicine: "I am incredibly proud of the role of our radiology team during all stages of this milestone surgery – from the initial detailed ultrasound to the subsequent CT and MRI scans which enabled us to prepare the 3D model of the twin's abdomen. The 3D model was printed based on the specifications from the scans and was used as part of the pre-surgery planning process. It is a key feature that sets our services apart here in Qatar and the region. The success of this surgery was a fantastic showcase of a multidisciplinary team spirit and how different pediatric specialties work together for the best possible patient outcomes."

Dr. Mitchell Stotland, Division Chief of Plastics and Craniofacial Surgery, Sidra Medicine: "The plastics reconstruction team had dual roles as there were two surgeries involved in the separation process. First was the tissue expansion surgery, where we inserted silicone balloons under the skin and muscles of the abdominal wall of both babies. These were used to gradually stretch the abdominal wall over two months, so that once we separated the babies during the actual separation surgery, there was ample skin and muscle for us to reconstruct and close the incisions properly. We are so thrilled to see the babies recovering beautifully. What was particularly meaningful for me about the whole process was the camaraderie, collaboration and impressively professional team work."

To watch the surgery video: <https://bit.ly/2EcIxBQ>

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About Sidra Medicine

Sidra Medicine provides specialized healthcare to women, children, and young people from Qatar and around the world. It is a private hospital for public benefit.

Established by Qatar Foundation for Education, Science and Community Development, Sidra Medicine embraces best practice medical education, innovative biomedical and clinical research and discovery, and exceptional patient and family focused care. This unique combination makes Sidra Medicine one of the handful of healthcare organizations in the world that embeds the concept of personalized medicine into its very ethos of treatment and care.

Sidra Medicine provides comprehensive specialist healthcare services for children and young people, as well as maternity and gynecology care for women. Some of its unique children's specialist services include Cardiology, Neurology, Urology and Plastics & Craniofacial Reconstruction. It also treats and cares for pregnant women with fetal complications.

The ultramodern healthcare organization is a testament to Qatar's pioneering spirit and sustained commitment to its human and social development.

To access Sidra Medicine services, and learn more about our contribution to global healthcare, education and research, please visit www.sidra.org.