

14 Hours long Marathon Surgery at Batra Hospital Gives New Life to Sita and Gita

by Beenum Yadav

The preparation for the surgery started two days ago with the kids being given blood transfusions to build up their haemoglobin which was low, cleansing of their intestines and urinary tracts to prevent post operative complications. Pre-operative work up was done in a systematic and detailed manner with extensive blood test, ultrasounds, high resolution CT Scans & MRIs with 3D reconstruction of the same. Radio nuclear renal scans with fractional functions of the kidneys were also done. Nutritionally the children were built up before surgery. The combined weight of both the children was 12 Kg. These conjoint twins were fused with a lower part of the pelvis, spine, hip bones, legs with a common intestinal tract and common genito-urinary tract. These are genetic defects at a embryonic level with it being very rare. Very few cases have been successfully been operated



upon worldwide in the 50 years and just a handful in India stated Dr. Sanjeev Bagai, CEO, Batra Hospital & Medical Research Centre.

The surgery started at 7:00AM on 5th April, 2010, with both children being given anaesthesia separately but simultaneously. The surgery lasted for 14 hours.

After putting the children to sleep central lines were put

Conjoined twins

Conjoined (Siamese twins) are identical twins whose bodies are joined in utero. A rare phenomenon, the occurrence is estimated to range from 1 in 50,000 births to 1 in 100,000 births, with a somewhat higher incidence in Southwest Asia and Africa.

Approximately half are stillborn, and a smaller fraction of pairs born alive have abnormalities incompatible with life. The overall survival rate for conjoined twins is approximately 25%. The condition is more frequently found among females, with a ratio of 3:1.

Two contradicting theories exist to explain the origins of conjoined twins. The older and most generally accepted theory is fission, in which the fertilized egg splits partially. The second theory is fusion, in which a fertilized egg completely separates, but stem cells (which search for similar cells) find like-stem cells on the other twin and fuse the twins together. Conjoined twins share a single common chorion, placenta, and amniotic sac, although these characteristics are not exclusive to conjoined twins as there are some monozygotic but non-conjoined twins that also share these structures in utero.

The most famous pair of conjoined twins was Chang and Eng Bunker (1811–1874), Thai brothers born in Siam, now Thailand. They traveled with P.T. Barnum's circus for many years and were billed as the Siamese Twins. Chang and Eng were joined by a band of flesh, cartilage, and their fused livers at the torso. In modern times, they could have been easily separated. Due to the brothers' fame and the rarity of the condition, the term came to be used as a synonym for conjoined twins.



into the major vessels to monitor body functions as blood pressure, heart rate, central venous pressure and to give fluids and blood as required – stated Dr. Pawan Gurha of Critical Care.

The children were then made to lie on their abdomen and the surgery was started from the back. After making the skin incisions, the skin flaps were raised.

The lower ends of the spinal column were united which were separated gradually with infinite care so as not to damage any nerves.

“After separation of the spine, the pelvis opened. Both the intestines were joined and had a common anal opening. Both the intestines were then separated and the anal canal was split in the middle to give each child an independent and functional opening to pass stools”, said Dr. Arvind Sabharwal – Paediatric Surgeon.

After that the vaginas were separated which had a common wall which was just 2-3mm thick. With infinite care and patience the common wall was split and two vaginas were created stated Dr. Rohit Nayyar – Plastic Surgeon.

Both the urethras were lying intimately close to the vagina. Both the urinary openings were then separated by Dr. P.P. Singh, Urologist.

Then both the children were turned on their back and the rest of the dissection to separate the muscles and the bones of the pelvis was carried out.

The separation took about five hours.

Then the children were moved onto two different operation tables and the reconstruction work was started. The new anal opening, the opening of vagina and the urinary tract were reconstructed to give a normal appearance. The shape of the external genitalia was brought to normal. Then the skin flaps were constructed and the whole skin defects were closed successfully.

The total time taken was about 5 hours.

8 Surgical teams of 27 total specialist and 12 dedicated nursing staff worked on these children simultaneously. This has been a phenomenal success story not only for the Batra Hospital & Medical Research Centre, but also for the Indian Medical Fraternity which has truly made rapid strides to be world leaders in healthcare. The full medical team was of Batra Hospital full time doctors, which are world leaders in human intellect and clinical skills – stated Dr. Sanjeev Bagai, C.E.O. The children are now being observed in the paediatric intensive care for close monitoring and care. This surgery could be a revolutionary path breaker for high end specialized surgical procedures in children, added Dr. Bagai. ☐