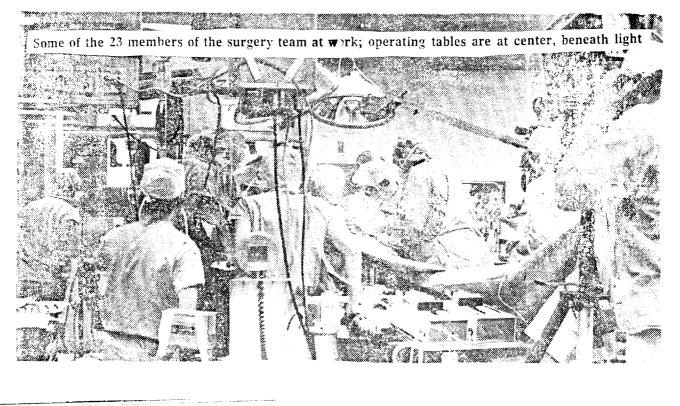
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Twins Are Separated— And Survive

Two 13-month-old Siamese twins were successfully separated in a rare, 10½-hour-long operation at Children's Hospital Wednesday. The past weeks have been hard on them and their mother. Here is their story.





Philadolphia Inquirer / GERVASE J. ROZANSKI

The twins and their mother a day before surgery



Dr. C. Everett Koop, chief surgeon



Dr Koon (right) tends to one child after separation

Samese Lwins Separated During 10½-Hour Operation

By DONALD C. DRAKE Inquirer Medical Writer

At first glance there didn't seem to be anything wrong with the two little girls who were playing games with each other Tuesday morning in the crib bed at Children's Hospital.

They were obviously happy. The color in their faces was good. And they certainly were active. But there was something terribly wrong. They were Siamese twins. They had been living attached to each to other since their birth in San Jose, Dominican Republic, a little over a year ago.

Joined together at the lower trunk and pelvis, they looked as if they were sitting in each other's lap. But neither could and only one could sit up at a time, a cause of considerable consternation to them when they both wanted to sit at the same time.

In less than 24 hours, the babies would be wheeled down the corridor to an operating room, put to sleep with anesthesia and separated by a team of 23 doctors and nurses that had been assembled for the unusual operation.

Siamese twins occur only once in 60,000 births, when the fertilized egg doesn't divide completely as it normally does in twin conceptions. Most Siamese twins are stillborn. A few are born alive but share a single vital organ like a heart, making separation impossible without sacrificing one of them. Other times they are joined at the head and separation is impossible

Fortunately for these two babies, they were joined at the abdomen and pelvis. The only organ they shared was the liver, and each of the babies provided her own blood supply to this organ, making it possible to cut the liver in half, giving one part to each baby, which would be more than enough to sustain life.

Rare Surgery

Living Siamese twins are so rare that the last operation of this type in Philadelphia was performed eight years ago, at St. Christopher's Hospital for Children. Children's Hospital had not been used for one since 1957.

The babies' mother, Mrs. Farida Moris de Rodriguez, looked tired and frightened Tuesday when she visited the hospital. She didn't speak English and she was terrified by the big city of Philadelphia and by the strange machines and electronic devices that were being used on her babies.

Since she is the wife of a farmer, she knew nothing of such things. Her one-acre farm does not even have electricity, and the nearest city of any size is Santo Domingo, a three-hour ride away. They live off the farm produce and the money it brings from the roadside vegetable stand they run.

The last year had been a difficult one for her. When her Siamese twins, Clara and Altagricia, were born Aug. 12, her doctor told her that the babies probably would die in a few months and that nothing could be done.

Another Doctor

She took the babies home to die.

Instead, they became healthier and stronger. Another doctor was consulted. He told her that the twins possibly could live to adulthood, but that it would be impossible to divide them.

Mrs. Rodriguez resigned herself to a wretched fate. But fortunately, word of her plight was passed to Mrs. Rodriguez's cousin, who mentioned it to the woman she worked for in Puerto Rico, who in turn told her sister, Mrs. Diana Zimnoch in Warrington. Mrs. Zimnoch called Children's Hospital.

A few months later, a very frightened woman, her Siamese twins clutched in her arms, boarded a jet for Philadelphia, a city she had never heard of that had a hospital that might be able to do something for her babies.

With little money of her own, Mrs. Rodriguez had obtained the air fare from Mrs. Zimnoch's church, the Community Christ Church in Warrington, which raised the

nated the medical care.

Difficult Day

Mrs. Rodriguez last saw her daughters joined together Tuesday. She put them on her lap in a rocking chair in the pediatric unit, combed their hair and kissed them goodbye.

Wednesday would be a difficult day for her.

the hospital. Instead, she would wait by the phone at Mrs. Zimnoch's house in Warrington, where she had been staying with the promise of getting bulletins from the operating room at two-hour intervals. When it was over she would cable her husband and five other children in the Dominican Republic.

The babies were taken to the operating room at 6:15 Wednesday morning.

Simultaneously two of the anesthesiologists who would be working in the operating room placed a face mask over each baby's mouth and the twins were put to sleep.

The operating room began filling with people. The babies were propped up on the foam wedges, each sitting on different operating tables that had been pushed together. As soon as separation was achieved, the two tables and babies would be pulled a few feet apart so surgeons would have more room to work on each child.

First Cut

It took more than three hours to hook four monitoring and drug lines into the blood vessels of each baby and put tubes down their throats because it was so awkward to work on them joined together. Not until 10:15 did Dr. C. Everett Koop, the surgeon-inchief at Children's and the senior physician on this case, make the first cut.

Moving swiftly, he and Dr. Louise Schnaufer cut through the outer skin, divided the

funds. Children's Hospital do- liver and then worked on the bladder and intestines.

The ureters leading to the bladders crossed between the two babies, so they had to be severed and resewn. Because the babies had only one rectum, Dr. Koop was afraid that he would have to perform a colostomy on Alta, pushing the colon (large intestine) through the wall of the abdomen.

But the surgeons were in She couldn't bear to go to luck. Not only was there enough colon to enable him to make an artificial rectum and put it in the normal place, but he also was able to insert it through a muscle mass so that Alta would have some control over her bowel functions.

> The operation was moving rapidly when Dr. Stanley Chung, an orthopedic surgeon, and Dr. John W. Duckett Jr., a urologist, joined the ·team.

Babies Separated

Using a circular hand saw. the surgeons cut through the pelvis and finally, with an electrical scalpel that cuts and cauterizes tissue at the same time, they severed the remaining skin that joined the two babies.

It was 10:37 A. M., a little more than four hours since the operation began. A call was placed to Mrs. Rodriguez. Her twins had been separated, she was told, and things were going much better than had been expected.

But much still had to be

A principal problem was to close the gaping hole in the abdomens where both infants had been joined by a limited amount of tissue.

Clara had more than enough extra flesh, so they easily closed the wound and sent her to the recovery room. She would have to undergo a second operation in about two weeks because surgeons would need to break her pelvis in two places to get the hip joints into the proper place for walking.

But they did not want to keep her on the operating table any more now. It had been a hard day for the baby.

Problem Solved

But there wasn't enough skin to close the hole in Alta's abdomen, so the surgeons broke her pelvis in two places and bent it from a C-shape into the circle it was supposed to be. Not only did this enable them to close the hole

with the available tissue, but it got her hip joints into the right position for walking.

The operation ended at 4:40

Dr. Koop declared it a complete success.

In the future, the twins will need minor surgery to get rid of a tissue wall that split their two vaginas into four.

Alta's rectum and vagina are side by side, but as she grows older they should move to the normal front-back posi-

To help the wounds heal, the doctors minimized the amount of abdominal movement by paralyzing the babies' muscles with a drug and attached the babies to machines that will breathe for them. The machines should be needed for about two days.

Separate Lives

There probably will be psychological problems.

But no one can predict how a baby will react to living the life of an individual, separate person after being joined to another person for 13 months.

Mrs. Rodriguez hopes to return to the Dominican Republic in a few days, because she feels she can't leave her family of six alone any longer.

If money can be raised to bring her back in a month or two when the twins' recuperation is completed, she will return to Philadelphia and to take them home.

If not, some other arrangement will be made.

But Wednesday no one was worrying about such things.