

THE RUSH FETAL AND NEONATAL MEDICINE PROGRAM

SUCCESSFUL GASTROSCHISIS MANAGEMENT IN TWIN DELIVERY

Presentation: K.R., a 19-year-old pregnant mother with twins, presented to the Rush Fetal and Neonatal Medicine Program in January 2008, following referral from an outside hospital for an abnormal fetal ultrasound result showing protrusion of the intestines outside the abdomen. Repeat ultrasound performed by program co-director and obstetric and gynecologic ultrasound specialist Jacques Abramowicz, MD, confirmed the diagnosis of a fetal abdominal wall defect consistent with gastroschisis in twin A.

Following an initial meeting to discuss the findings, K.R., her husband and her family participated in a multidisciplinary conference with the entire clinical team participating in her case. Together, they established a prenatal care plan, a delivery care plan and a postnatal care plan. The team consisted of a perinatologist, a pediatric surgeon, a general pediatrician, a neonatologist, advanced practice nurses, a social worker and a chaplain.

Prenatal care: After consultation with the team and her referring obstetrician, K.R. transferred her prenatal care to Women's Health Consultants at Rush because of their expertise in high-risk pregnancies. Both babies had interval assessment of fetal growth via ultrasound, with special attention to the appearance of the fetal intestines on twin A. Further assessment of fetal well-being began at 32 weeks via antenatal testing.

Delivery: The initial plan was term delivery; however, due to development of maternal pre-eclampsia, a c-section was performed at 33 weeks of gestation. Robert Kimura, MD, program co-director and attending neonatologist, Xavier Pombar, DO, perinatologist, and Ai-Xuan Holterman, MD, pediatric surgeon, assembled their respective teams to attend K.R.'s delivery. Twin A was born weighing 4 lbs. 5 oz. with gastroschisis; twin B weighed 4 lbs. 6 oz. with no abnormalities.

Twin A's intestines had an abnormal appearance, indicating poor blood perfusion and possible intestinal volvulus. The baby was also noted to have abundant meconium-stained oral secretions, suggesting intestinal obstruction; immediate intubation to protect the airways was warranted. The intestines were rapidly detorsed and elevated with sterile saline dressings by the surgical team. This allowed perfusion, and ultimately the intestines regained normal color.

Surgical treatment: Because of concerns over the status of the intestines, the pediatric surgeon, Ai-Xuan Holterman, MD, decided to immediately proceed with surgery; the operating team was deployed within the hour. Adhesive bands causing intestinal obstruction were divided, the intestines were reduced back into the baby's abdomen and the open abdomen was closed within hours of birth.



Conclusion: Timely antenatal diagnosis, as well as comprehensive, coordinated and expert treatment allowed prompt and effective care for two delicate pre-term babies, in particular, a fragile twin with gastroschisis. The known complications of gastroschisis — intestinal injury with the potential for loss of intestines, short gut and delayed intestinal function — were avoided. Twin A was extubated six days following surgery. The baby tolerated initial feedings at 10 days, and was discharged four weeks later at 5 lbs. 14 oz. Twin B was discharged three weeks after pre-term delivery with no complications at 5 lbs. 4 oz.

To refer a patient to the Rush Fetal and Neonatal Medicine Program, please call (312) 942-RUSH (7874).

Available 24 hours a day, seven days a week, we provide multidisciplinary expertise to expectant parents facing complex fetal anomalies.

FETAL AND NEONATAL MEDICINE AT RUSH

At the Rush Fetal and Neonatal Medicine Program, we believe that when confronting a fetal anomaly, such as gastroschisis, it's best to face it with an experienced group of compassionate health care specialists who are dedicated to the unique needs of each baby and family. That is why the Rush Fetal and Neonatal Medicine Program was created. This comprehensive program is designed to give expectant parents and their physicians the information needed for optimal care.

WHAT YOU CAN EXPECT FROM US

When referring patients to the Rush Fetal and Neonatal Medicine Program, you can expect the following:

Around-the-Clock Availability

- Easy, reliable access with one phone number: (312) 942-RUSH (7874)
- Staff at the ready 24 hours a day, seven days a week
- Access to clinicians at Rush to discuss current cases and patients

A High Level of Care

- Advanced diagnostics and treatments
- Expedited access to appointments (the majority of patients are seen by a clinician at Rush within 48 hours of their initial contact)
- Mother and baby are in same facility for ease and promotion of breast-feeding and maternal-fetal attachment

A Collaborative Relationship

- Ongoing communication throughout the entire process (follow-up letters, test results, etc.)
- Respect for and compliance to your wishes and your patient's wishes
- Encouragement to participate in the multidisciplinary consultation with your patient

STREAMLINING MULTIDISCIPLINARY CONSULTATIONS WITH ONE MEETING

For the consultation meeting with expectant parents and their referring physicians, we bring together a group of specialists based on the unique needs of each family. These specialists may include the following:

- Ultrasound specialists
- Geneticists
- Neonatologists
- Obstetricians and specialists in maternal-fetal medicine
- Pediatric surgical specialists in general surgery, orthopedics, neurosurgery, otolaryngology and reconstructive surgery
- Pediatricians
- Pediatric specialists in cardiology, interventional cardiology, hematology, nephrology and neurology
- Nurses with advanced training
- Palliative care experts and ethicists
- Social workers
- Other specialists as needed



WORLD-CLASS CARE

The program is headed by two internationally recognized leaders in their fields: Jacques Abramowicz, MD, director of obstetric and gynecologic ultrasound; and Robert Kimura, MD, director of the Section of Neonatology and associate dean of Rush Medical College. And it is backed by the many resources of one of the best academic medical centers in the country. Consistently ranked among the nation's top hospitals by *U.S. News & World Report*, Rush has twice earned Magnet status from the American Nurses Credentialing Center — the highest honor in nursing. It has also been named among the top five academic medical centers in the country by the University HealthSystem Consortium in its annual quality and accountability performance ranking. These honors reflect Rush's ongoing commitment to providing unparalleled care by working collaboratively to pool knowledge and exchange opinions based on expertise and experience.