Abstract:
The emergency department (ED) presentation of a medically and surgically complex pediatric patient with a request to transfer medical care creates challenges for efficient evaluation and treatment. A case study of a female infant with a cloacal anomaly who presented to the ED of an academic tertiary children's hospital where she was previously unknown addresses the issues involved, including resource utilization, long ED length of stay, and establishing new physician-patient relationships. The ultimate goal is to efficiently treat acute medical and surgical issues and to establish a trusting relationship between providers, patient, and family that will lead to the best possible medical and surgical outcome.

Keywords:
complex surgical anomaly; ED length of stay; transfer of care; doctor-patient relationship

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Complex Transfer of Care of Surgical Patients in the Emergency Department: Ethical and Resource Utilization Issues

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One of the most difficult challenges facing physicians in the emergency department (ED) is managing patient transfers. In a large tertiary academic medical center, pediatric patients may present to the ED with parents who wish to transfer or establish the patient's care, while initial treatment may have occurred at 1 or more other hospitals. This situation is made all the more challenging when dealing with a high-acuity pediatric patient with a complex surgical problem. This particular issue, the arrival of a high-acuity pediatric patient with complex surgical issues in the ED, along with the family's request to initiate transfer of the patient's subspecialty care, raises complex ethical and resource utilization issues.

CASE

A 3-month-old, former 35-week preterm female infant arrives with her parents in the ED of a large freestanding children's hospital, with concern for fussiness, decreased drainage from a surgically placed tube, and a request to transfer the infant's care. Her parents state that she was born at an area hospital where she had surgical creation of a colostomy and vesicostomy for imperforate anus. She was then transferred to another hospital with a pediatric surgical service in the same city for further care at age 3 weeks, after she developed sepsis due to a urinary tract infection. She underwent a vaginostomy procedure at the second hospital, as part of the management for the diagnosis of a cloacal anomaly. According to her parents and discharge summaries obtained from the previous hospitals, she was ultimately discharged home at age 5 weeks with a left lower quadrant colostomy, midline vesicostomy, and right lower quadrant tube vaginostomy.

The infant was readmitted at age 8 weeks to the second hospital with septic shock, due to sepsis from a urinary tract infection, and had a tunneled central line placed surgically during that hospitalization. She was treated with intravenous antibiotics and discharged home after a nearly 3-week hospital stay. She had a follow-up outpatient appointment with her pediatrician on the day of presentation to the ED (1 week after her most recent hospitalization). Her parents expressed fear that "she was getting sick again" and that they had not had follow-up appointments with the surgeons who performed the procedures. Since hospital discharge, she had been taking 4 oz every 3 to 4 hours of a 22 kcal/oz formula. Her mother noted that she had not gained weight steadily or nearly like her other 3 children did (all healthy boys, ages 9, 4, and 2 years).

On examination in the ED, the infant was irritable with a weak cry. Her weight was 3 kg, far below the fifth percentile for weight at age 3 months. She was afebrile. She had a single lumen tunneled catheter exiting from a well-healed site in the mid chest, and the catheter was clamped. She had a left lower quadrant end-colostomy with yellow soft stool in the bag. She had a midline vesicostomy, openly draining into her diaper. She had a right lower quadrant tube vesicostomy with scant brown-yellow drainage. Her abdomen was soft and nondistended and was not appreciably tender to palpation. Examination of her perineum revealed small but otherwise normal-appearing labia, a single perineal orifice in the approximate location of the vagina, no anal opening, and a midline raphe extending posteriorly from the perineal orifice. Her buttocks were noted to be flat, and no sacral dimple was present.

Laboratory studies, including blood and urine cultures, were sent. An abdominal ultrasound was obtained, which revealed left hydronephrosis, no right hydronephrosis, and a large fluid-filled structure with debris posterior to the bladder containing a drain, thought to represent a dilated vagina or uterus. The infant was evaluated by the pediatric surgery and pediatric urology services. The vaginostomy tube was flushed with chocolate brown effluent removed, and then the tube was irrigated with saline. After this, urine began to drain from the vaginostomy.

By the time the medical history data gathering, laboratory and imaging studies, and consultations had been completed, the patient and family had been in the ED for 10 hours. Ultimately, the infant was admitted to the pediatric surgery service with a diagnosis of vaginostomy tube obstruction, left hydronephrosis, failure to thrive, and possible sepsis.

DISCUSSION

Resource Utilization

This case involves presentation of an infant with a series of complex medical and surgical conditions to the ED of a tertiary pediatric hospital where she has never previously been treated. For pediatric emergency medicine and medical/surgical subspecialty providers, an important initial question regarding this patient's presentation would be the following: "Is there any possibility that this patient could be evaluated and in treated in the ED and discharged with outpatient management and follow-up?" An evaluation of several features of her history and clinical examination would likely lead to a conclusion that a plan for ED discharge might be unsafe. These features include the presence of a surgically placed tunneled central line, vaginostomy tube, vesicostomy, presence of a cloacal anomaly, and the infant's weight of 3 kg, indicative of failure to thrive. All of these features of the clinical examination point to a patient who is at risk for sepsis, from infection of the central venous catheter, to possible urinary sepsis, particularly in an infant with poor nutritional status.

The next issue involves the need for additional laboratory and imaging studies in the ED, along with pediatric surgical subspecialty consultation, and the pursuit of outside hospital records. As the records of prior treatment were obtained, it became clear that this patient had had prior urinary sepsis and complex surgical care at 2 other hospitals. To determine the appropriate level of care for inpatient admission (intensive care unit vs ward), initial laboratory