

Seven weeks after commencing Hydrazine Sulfate, he developed serious neurotoxicity characterised by encephalopathy. He required mechanical ventilation and intensive care. He was treated with 5gm of intravenous Pyridoxine.

Twenty-four hours after the administration of Pyridoxine, his cerebral function was appropriate and his encephalopathy improved. His subsequent recovery was complete.

Conclusion: High dose Pyridoxine is a useful therapy in Hydrazine toxicity. We will review the relevant literature on Hydrazine toxicity.

Keywords: cancer, cachexia; oesophageal; encephalopathy; hydrazine sulfate; hydrazine toxicity; neurotoxicity; pridoxine; toxicity

G-70

Development of Iotrolan Test for the Diagnosis of Traumatic Rupture of the Duodenum

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Introduction: An Iotrolan® test was developed to early diagnosis of traumatic rupture of the duodenum, and its usefulness was evaluated. In the past, the Gastrografin® test was reported to be a useful method for diagnosis to perforation of the upper digestive tract. However, if mis-swallowed, Gastrografin® can cause life-threatening chemical pneumonia. Iotrolan does not cause chemical pneumonia even if mis-swallowed. We performed a basic experiment using this very safety contrast media to make early diagnoses of traumatic duodenal rupture.

Purpose: If there is a duodenal rupture, Iotrolan leaks from the ruptured site into the peritoneal or retroperitoneal cavity, resulting in the absorption and rapid elimination of the material into the urine. This phenomenon is utilized to reach a diagnosis of duodenal rupture.

Methods: Urinary Iotrolan levels were measured using Computerized tomography (CT) scans. We used rabbits for experimental subjects. They were categorized into four groups: 1) oral treatment group (rabbits with intact digestive tracts given oral doses of Iotrolan); 2) intraperitoneal group (rabbits with intact digestive tracts given Iotrolan intraperitoneally); 3) duodenal rupture plus intraperitoneal treatment group (rabbits given Iotrolan intraperitoneally after induction of perforative peritonitis by creation of duodenal rupture); and 4) duodenal rupture plus oral treatment group (rabbits with duodenal rupture given Iotrolan orally). The four groups were compared for absorption of Iotrolan from the digestive tract and peritoneal cavity and elimination into urine.

Results: In the presence of duodenal rupture, Iotrolan was absorbed rapidly from the peritoneal cavity and quickly eliminated into the urine. In the absence of duodenal rupture, very little Iotrolan was eliminated into urine following oral administration, and the finding differed significantly from that in the duodenal rupture group.

Conclusion: The results indicate that the Iotrolan test, which measures urinary Iotrolan levels, should provide an early and reliable diagnosis to traumatic rupture of the duodenum. We will attempt to use this test clinically.

Keywords: diagnosis; duodenum, rupture of; Gastrografin; Iotrolan; pneumonia, chemical; trauma

General Session II
Hospitals in Disaster II
Wednesday, 13 May, 16:30–17:30 hours
Chair: *Edita Stok, Chiho Fujii*

G-82

Adaptation of the Hospital Emergency Incident Command System (HEICS) for Use in a University Teaching Hospital

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Introduction: The Hospital Emergency Incident Command System (HEICS; Paul Russell, RN, Orange County, California USA) was designed as an incident management system primarily for use in community hospitals. These institutions are not likely to have a large human resource pool available to supplement the disaster response.

Objective: To design a system of incident management suitable for use in disaster response within a university hospital.

Methods: The HEICS template was modified to accommodate the needs of a 500-bed university teaching hospital located in a major east-coast U.S. city.

Results: Three major elements are addressed in this university model of the HEICS. Several operations section job descriptions have been modified specifically for physicians and three new physician officer positions have been created in radiology, psychiatry, and occupational health. Roles and responsibilities have been created for allied health providers, such as physical/occupational therapists, and for in-training personnel, including medical and nursing students. Their tasks are mostly labor intensive, which allows more highly trained personnel to concentrate on supervisory and patient-care issues. Lastly, a position description and section plan has been developed to effectively safeguard and manage the information systems within the hospital and physical plant.

Conclusion: Adaptation of the HEICS for use in a university teaching hospital requires few technical changes, although position descriptions may need to be created or rewritten for physicians, who are more likely to be available and interested in command positions. Appropriate utilization of allied health providers and in-training personnel present in these institutions may alleviate the problem of supervisors performing menial tasks.

Keywords: hospital incident command system; incident management; information systems; personnel; physicians; responsibilities; roles; teaching hospital