P-081A Application of a ring retractor system in pediatric general and urogenital surgery

Department of Pediatric Surgery and Urogenital Surgery, Juntendo University, Tokyo, Japan

Yuki Ogasawara

Tadaharu Okazaki

Toshihiro Yanai

Yoshifumi Kato

Hiroyuki Kobayashi

Geoffrey Lane

Atsuyuki Yamataka

Purpose: To report the efficacy of a self-retaining ring retractor system for pediatric general and urogenital surgical procedures.

Methods: The retractor system used consisted of a plastic ring with a set of elastic stays with either a sharp or blunt hook (Lone Star Retractor®: Lone Star Medical Products, Inc., Houston). The self-retaining plastic ring was inserted into a wound and used to expand it in all directions as required. Effectiveness was evaluated according to a subjective scoring system by 5 operators at our institute where excellent scored 3, good 2, fair 1, and poor 0.

Results: From 1999 to 2006, the retractor was used in 234 patients aged from 1 day to 15 years (mean: 1.3 years). Indications were grouped to facilitate analysis. Group I (n=70): abdominal surgery. Group II (n=77): anorectal surgery. Group III (n=65): kidney incision. Group IV (n=12): genitalia surgery. Group V (n=10): umbilical incision. The plastic ring was easy to insert into all wounds safely and greatly enhanced visualization of the operating field. Mean scores for each group were: Group I 2.3, Group II 3.0, Group III 2.6, Group IV 2.1, Group V 3.0. There were no retractor-related complications encountered.

Conclusion: The Lone Star Retractor® is not prohibitively expensive and can is re-usable. From our experience, it is a device that is highly versatile and can be used with great safety even in children.

P-082A Primary reduction and spontaneous sutureless closure of Gastroschisis using a wound retractor

Department of Pediatric Surgery and Urogenital Surgery, Juntendo University, Tokyo, Japan

Yuki Ogasawara, Tadaharu Okazaki, Naho Fujiwara, Yoshifumi Kato, Geoffrey Lane, Hiroyuki Kobayashi, Atsuyuki Yamataka

Purpose: To report our experience of primary reduction and spontaneous sutureless closure of the abdominal defect in gastroschisis using an Applied Alexis wound protector and retractor® (WPAR).

Case report: A 2,488 g male with gastroschisis diagnosed at birth was transferred to our institute for treatment. There were no other anomalies present and his general condition was stable. The size of the abdominal defect was 2 x 2 cm. Under general anesthesia, manual reduction of the eviscerated bowels was attempted, but failed due to edema of the mesentery. A silo was made using WPAR. Subsequently, the silo was gradually reduced and primary complete reduction was successfully achieved at the time of initial operation. The umbilical cord was left long and kept moist deliberately so that it could be used as a biological dressing later. On the 4th postoperative day, WPAR was removed and the defect covered with the umbilical cord without suturing. The whole wound was then covered by Tegaderm®. The size of the defect was regularly checked. The defect closed spontaneously, and the Tegaderm® dressing was removed on the 24th postoperative day.

Conclusion: In addition to making the silo, WPAR was useful in this case because it facilitated primary reduction. This technique is simple and safe, and the cosmetic appearance of the abdomen was excellent.