

## **Laparoscopic Splenectomy in Children with Sickle Cell Disease**

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**Background:** Many children with Sickle Cell Disease (SCD) might experience severe sickle cell crises due to splenic complications. These include hypersplenism, acute splenic sequestration, splenic abscess and massive splenic infarction. Splenectomy is indicated to decrease the rate of recurrence of complications and the associated morbidity and mortality. The laparoscopic approach has proved to be associated with a better outcome. Many laparoscopic techniques were implemented for the removal of the spleen, especially when it is enlarged and fragile.

**Objective:** To evaluate laparoscopic assisted splenectomy technique and outcome in 51 children with SCD.

**Design:** A Retrospective Review.

**Setting:** Department of Pediatric Surgery, Salmaniya Medical Complex, Bahrain.

**Method:** Fifty-one children who had laparoscopic assisted splenectomy with a small inguinal incision from January 2002 to December 2014 were reviewed.

**Result:** Fifty-one children had laparoscopic assisted splenectomy for either hypersplenism 42 (82.4%) or acute splenic sequestration 9 (17.6 %); 32 (63%) males and 19 (37%) females. The age range was 6 to 14 years, a mean age of 9.8. Only one (1.9%) case required conversion to open procedure due to excessive bleeding. Only 7 (13.7%) were admitted in the ICU following the procedure. The mean length of hospital stay was four days; the measured decrease in the HBS was 38%, preoperative fever was seen in 16 (31%), and there was no mortality.

**Conclusion:** Laparoscopic splenectomy with a left inguinal incision is a safe and effective approach in children with SCD.