

Bilateral Oblique Pelvic Osteotomy with Pelvic External Fixator in Cloacal Exstrophy

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INTRODUCTION:

Cloacal Exstrophy is a congenital abdominal wall defect with bladder exstrophy and wide diastasis of pubic rami. The role of orthopedic surgery is to facilitate relaxation of abdominal wall during closure of exstrophy and to improve the outcome of genitourinary reconstruction.

REPORT:

A 4-year-old Indian boy was born term at 37 weeks via emergency cesarian section due to bleeding placenta previa. At day 4 of life, he underwent colostomy for imperforate anus. Other abnormalities noted at birth includes meningocele and septal defect.

He is under pediatric urology follow up for cloacal exstrophy. First stage surgery, laparotomy, end stoma and conversion of bladder was done by pediatric surgical team. Following a multidisciplinary team discussion, second stage surgery, bladder reconstruction and pelvic osteotomy was successfully done when the child is more matured.

Anterior approach was used to gain access to pelvic bone. Oblique osteotomy performed followed by supraacetabular pin insertion under I/I guidance. Final bladder reconstruction and closure was performed by pediatric urology team. A-frame pelvic external fixator was applied and connected between two pins as the final step.

Oblique pelvic osteotomy is chosen in our case as it has lower wound infection and dehiscence rates. This technique also does not require turning the patient from prone to supine during surgery, thereby shortening the operation and duration of anesthesia. It also provides greater pelvic mobility allowing for better pelvic approximation.



Figure 1: Pelvic external fixator applied to assist in anterior abdominal wall closure



Figure 2: Preoperative and post operative Xray images

CONCLUSION:

Multidisciplinary team approach is essential in management of such complex cases. Bilateral oblique pelvic osteotomy aiding the closure of anterior abdominal wall following a successful bladder reconstruction in which these osteotomies together with pelvic external fixation reduces soft tissue tension thus helps in healing and prevent failure of the repair.

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