Implant Failure after Posterior Instrumentation on Extreme and Progressive Congenital Scoliosis with Some Comorbidities: 4 Years Follow Up

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INTRODUCTION:
There are various complexities in congenital scoliosis ranging from the characteristic of rapid progressive, associated with fleeting cardiac and pulmonary function deterioration, worsening postural deformity predisposing limited range of motion and presence of other congenital disorders complicating the treatment. Until recently, the management of complex congenital scoliosis has not been satisfying as a consequence of poor accurate diagnosis, associative congenital comorbidities, and the possibility of crank shaft phenomenon and short stature development. Surgical techniques using posterior instrumentation has been the treatment of choice due to unsatisfactory conservative results. This paper showed implant failure after posterior instrumentation.

METHODS: It was a case report with 4 year follow up and done observations of surgical intervention, implant failure, progression and achievement of correction.

Case illustration: Nine year old boy with corrected anal and esophageal atresia which was diagnosed with congenital scoliosis at 2 year age with 40 degree of Cobb angle. He had undergone conservative and operative treatments since 5 year old but no optimal outcome, delay or progressivity and neither postural correction (figure 1).

RESULT: This case was performed two kinds of surgical interventions. The first surgery was single concave correction approach by using cervico-thoracic junction rod. The rod was failure 7 month after the first surgery. The second surgery was done to change screw and rod with bigger one. The second implants were also failure 35 month after the second surgery. (figure 1).

DISCUSSION AND CONCLUSION:
Evaluation to the measures taken have been evaluated, following steps ahead and prediction of future outcome has been a continuous homework for our multidisciplinary team to improve his quality of life.

Failure of implants in this case may be caused by inappropriate harmony of biomechanical force between growing bone and strength of implant loading.


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