

Correction of Constriction Ring: Z-Plasty without Ring Excision

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INTRODUCTION:

Constriction Ring Syndrome, also known as Amniotic Disruption Sequence or Amniotic Band Syndrome (ABS), is among the commonest congenital anomaly of the extremities encountered. Correction surgery is performed to improve function and appearance. We are presenting a case where correction surgery is performed using Z-plasty without ring excision that shows a good outcome.

REPORT:

A child was referred to the Hand & Microsurgery unit in Hospital Kuala Lumpur for ABS involved the right hand and foot. He was delivered via elective caesarean section for precious child of a couple with subfertility. Antenatally, mother had gestational diabetes mellitus on diet control. Type 1 constriction rings are present on the proximal phalanx of right thumb and ring finger and there is an amniotic web over right 2nd and 3rd toes. There is no functional restriction of interphalangeal joints of right thumb and ring finger. Right ring finger constriction ring correction performed for him at 2 years old. A single dorsal Z-plasty performed without excision of the constriction band. He has a well healed scar and aesthetically appealing right ring finger post op. Interphalangeal joints of the ring finger remains in full active motion.

DISCUSSION:

The mainstays of treatment are excision of the ring and subcutaneous tissue combined with Z-plasty or W-plasty. Upton et al.¹ described the use of subcutaneous advancement flap while Mutaf et al.² described the use of rectangular dermofat flaps turned over in alternate. Meanwhile, Mazen et al.³ described direct closure after constriction band excision to be the simplest and most appropriate way. All these methods involved excision of the constriction ring which was not performed in our patient and yet resulted with a satisfying outcome.

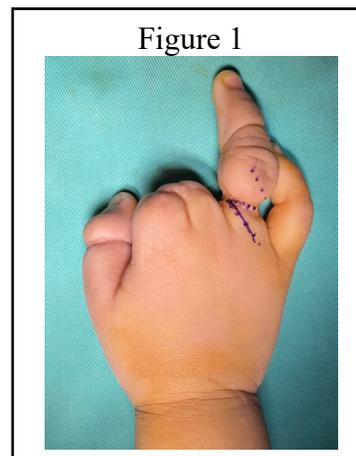


Figure 1: Single dorsal Z-plasty over right ring finger



Figure 2: 7 weeks post surgery.

CONCLUSION:

Z-plasty without ring excision has shown good outcome but potential long term complications need to be monitored as the child grows.

REFERENCES:

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