



## Congenital Dislocation of the Knee in a Newborn

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### Clinical Note

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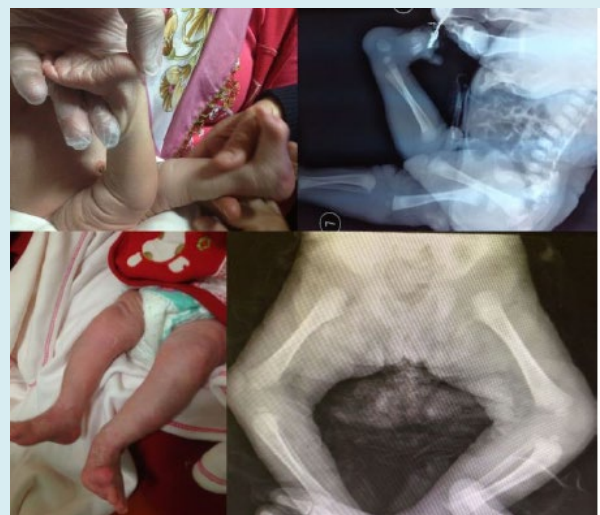
### Abstract

Congenital dislocation of the knee (CDK) is a relatively rare condition with an estimated prevalence of 1 per 100 000 live births, which is approximately 1% of the incidence of developmental dysplasia of the hip<sup>1</sup>. It may occur in isolation, but often occurs in the presence of muscle imbalance such as that seen with arthrogryposis, Larsen syndrome, and myelomeningocele. CDK has also been reported to occur with other musculoskeletal abnormalities including developmental hip dysplasia, clubfoot, congenital vertical talus, and congenital dislocation of the elbow<sup>2</sup>.

**Keywords:** Congenital Dislocation; Myelomeningocele; Radiograph; Newborn Baby

### Introduction

A 2700-g-female newborn was delivered by spontaneous vertex delivery to a-18 year-old mother at 394/7 gestational weeks. There was no history of oligohydramnios. The newborn had deformity as hyperextension at her knees bilaterally on initial examination (Figure 1a). No other physical anomaly was observed, and there was no family history of knee, hip, or foot deformity. Hyperextension of the knees ranged from  $-10^{\circ}$  to  $-70^{\circ}$  and both of them could be flexed to  $90^{\circ}$  passively. The radiograph showed the tibia as dislocated anteriorly (Figure 1b). Serial casting was started for treatment within 24 hours. The degree of hyperextension decreased gradually starting from the first week with casting, and the knee flexed fully within two mounts. Displasy of the left hip were detected during the eight months follow up. And treated with abduction brace. Figures 1c & 1d show the last examination and radiograph of the patient at 7 months of age [1].



**Figure 1:** Deformity with hyperextension on her knees at birth (a); the tibia dislocated anteriorly at birth (b); spontaneous flexion posture on knees at seventh month (c); normal tibia location at seventh month

## Discussion

Congenital dislocation of the knee (CDK) is a relatively rare condition with an estimated prevalence of 1 per 100 000 live births, which is approximately 1% of the incidence of developmental dysplasia of the hip. It may occur in isolation, but often occurs in the presence of muscle imbalance such as that seen with arthrogryposis, Larsen syndrome, and myelomeningocele. CDK has also been reported to occur with other musculoskeletal abnormalities including developmental hip dysplasia, clubfoot, congenital vertical talus, and congenital dislocation of the elbow [2].

## Conclusion

The range of movement at the joint and any limitation of flexion are important to note. Although spontaneous reduction of CDK has been previously described in few cases, serial casting or splinting and occasionally surgery are still the main therapy strategies [3,4]. Conservative treatment

strategies may be suitable especially in newborn with isolated CDK such as in our patient.

## References

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