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# Congenital knee dislocation: A great source of maternal anxiety

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## Abstract

The communication of a congenital anomaly diagnosis can lead mothers experience anxiety, stress, fear or even mourning, especially if a congenital malformation is diagnosed in the postnatal period. We herein present a case of a bilateral knee dislocation in a female neonate and its impact to maternal anxiety. The baby was born by an assisted vaginal delivery and deformity of both knees was noted at birth. Neonatal examination did not reveal any other pathologic findings. Pregnancy was uneventful and prenatal ultrasound scans and screening tests were all normal. Upon hearing the news, the mother felt depressed and frightened for her newborn's health and the care providers reassured and encouraged her. Conservative treatment was recommended by a pediatric orthopedic surgeon. Two months later, the newborn stays under close follow-up and the mother feels calm and optimistic, regarding child's clinical course. According to our case, the communication of a congenital anomaly diagnosis immediately after childbirth, had an impact on mother's emotions. Therefore, proper intervention by health professionals should be implemented, in order to encourage parents to manage extreme emotional reactions and adapt better to the diagnosis of a congenital malformation.

## Keywords:

Congenital malformation; knee dislocation; postnatal diagnosis; maternal anxiety; depression.

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## Introduction

Pregnant women often experience anxiety and doubt in relation to the new being that is yet to be born. When congenital malformations of the newborn are diagnosed antenatally these feelings may become exaggerated. Especially if these birth defects are diagnosed unexpectedly in the postnatal period, puerperal mother's emotional reactions of happiness and fulfillment may turn into stress, fear or even mourning in some cases (1). We hereby present a case of a bilateral knee dislocation in a female neonate and its impact to maternal anxiety.

## Case report

The baby was born by an assisted vaginal delivery with forceps at $37^{+4}$ weeks of gestation due to fetal compromise. Pregnancy was uneventful and prenatal ultrasound scans and screening tests were all normal.

The neonate was weighing 2970g and deformity of both knees was noted by the midwife at birth. On clinical examination, both knees were pathologically hyperextended; although tone and movements of the toes were normal. Skin folds and grooves were present anteriorly indicating a reducible type of congenital dislocation of the knee (Figure 1).

The knees were able to passively flex to an anatomical right position. Neonatal examination did not reveal any other pathologic findings. Radiologic assessment revealed normal bone structure.

Upon hearing the news, the mother felt depressed and frightened for her newborn's health; midwives along with the patient's gynecologist and the neonatologist reassured and encouraged her. The neonate was referred to a pediatric orthopedic surgeon and conservative treatment was recommended. Two months later, the baby stays under close follow-up by the orthopedic team and the mother along with her husband feel calm and optimistic, regarding child's clinical course.

## Discussion

Congenital knee dislocation (CDK) is a rare clinical condition at birth with an incidence about 1 in 100.000. CDK is characterized by displacement of the femoral condyle and may present as a bilateral condition in one third of cases (2-3). Etiology is unknown and several factors have been associated with CDK. It may occur as part of Larsen syndrome, arthrogryposis or meningocele. Mechanical factors such as oligohydramnios, breech presentation and umbilical cord entanglement around fetal legs have been postulated as to the etiology of CDK (4).

The diagnosis can be easily made after birth by the typical position of knee recuvartum whereas radiologic confirmation should be performed. Ultrasonography can be also used when investigating cases of CDK in order to directly evaluate the pathologic lesion (5).

Early conservative treatment with closed reduction by physiotherapy and splint or cast immobilization is considered the gold standard management of CDK. Surgical approach is appropriate for cases with delayed presentation or recurrence (6). The process from diagnosis to treatment option can be often a great source of anxiety for both parents and especially for the mother (3).

The communication of a congenital malformation diagnosis of the neonate during the postnatal period has a remarkable effect in parents' emotional reactions (7-8). On the other hand, when congenital abnormalities are diagnosed prenatally, parents can prepare emotionally till birth (9). In a cross-sectional study with mothers of newborns with congenital anomalies, the level of maternal anxiety was compared according to the time of diagnosis. It was found that mothers with the diagnosis be made antenatally were less stressed and anxious comparing to when the bad news of malformation were transmitted after childbirth (1). There is also a high risk for mothers to exhibit symptoms of post-traumatic-stress disorder (10).

When an antenatal or postnatal diagnosis of a malformation is established, changes in the family function may occur and parents' adaptation may get complicated (11).

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Thus, when an unexpected diagnosis is communicated, an intervention of health professionals with certain strategies should be implemented, in order to help parents. The mother should get proper time to express her feelings after the initial disclosure and care providers should come up with information regarding specific caretaking skills, implications of the diagnosed congenital anomaly and treatment options. It is also essential that a multidisciplinary team encourages parents to manage extreme emotional reactions and restore the perception of controlling the situation (7). In this context, parents are able to adapt better to the diagnosis of a congenital malformation and feelings of anxiety and stress can be minimized.

According to our case, the communication of the CDK diagnosis immediately after childbirth, had an impact on mother's emotions; worries about the neonate's health and her future ability to walk, lead to maternal feelings of fear and depression. However, the immediate and proper support by health care professionals as well as the communication of information regarding the diagnosed congenital anomaly given by care providers managed to alleviate maternal anxiety, allow the mother adapt to her new role and enjoy bonding with the newborn.

***Figure 1: Bilateral congenital knee dislocation on normal resting position.***

## *Conflict of interest:*

The authors declare no conflicts of interest. **Funding:** None, **Authors' contribution:** CM conceived the idea. KZ wrote the first draft. CM, AG and AD critically reviewed and amended the draft. All authors approved of the final draft.

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