

## **Diagnostic Image**

## Sirenomelia (Mermaid Syndrome)

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irenomelia is a fatal condition characterized by the fusion of the lower extremities, single umbilical artery, and severe malformations of the genitourinary and lower gastrointestinal tract. It can occur either as a separate entity or be associated with caudal regression syndrome. It is usually fatal within a day or two of life due to the complications associated with abnormal development of kidneys and bladder as well as their function. In Mexico, it has an incidence of 1 per 60,000 newborns; it occurs more frequently in monozygotic pregnancies than in singleton pregnancies. The etiology of this anomaly is controversial and complex because in most cases there are neither inheritance patterns nor genetic backgrounds tested. Some authors state that this malformation is associated with maternal diabetes, excessive doses of vitamin A, and exposure to cocaine but nothing is concrete yet.

There are two classifications proposed by Foster in 1865 which consider the degree of fusion of the limbs, which in turn are subdivided in:

- 1. a) Simelia apus: Only one femur and a tibia with no feet (Apodi), b) Simelia unipus: Normal femur, tibia, and fibula with partial melting of feet, c) Simelia dipus: Fusion of the lower limbs extending to the malleoli, fin-like (dipodia) muscles of both limbs are present.
- The latest classification (Stocker y Heifetz) consits of seven subgroups: Type I: Femora, tibiae

and fibulae are present in pairs; Type II: Single fibula fused; Type III: Absence of fibula; Type IV: Partially fused femora with single fibula; Type V: Partially fused femora with absence of fibula; Type VI: A single femur and a tibia; and Type VII: A single femur with absence of tibia and fibula.

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