Teratogenic Effects of Misoprostol

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We report a clinical case of a newborn who, in the first examination, showed brachydactyly of the third, fourth, and fifth fingers (third phalanx) of the left hand (Fig. 1) and of all toes (Fig. 2). There were no polydactyly or other malformations, namely aplasia cutis, limb shortening, VI and VII cranial pairs paralysis, or immobile face. There was a medical pregnancy termination attempt at 10 weeks of gestation, with misoprostol and mifepristone. The mother failed to go to the follow-up appointment, and at 16 weeks of gestation, a viable pregnancy was confirmed. The remaining follow-up was uneventful and fetal ultrasounds were reported as normal. The delivery was normal at full term and the neonatal period was uneventful. Follow-up appointments, at 1 and 6 months of age, showed regular growth and normal development. No other malformations were noted, besides those previously mentioned.

Misoprostol increases the risk of congenital malformations by 2%-5%.[1-4] The teratogenicity seems to result from an increase of uterine contractions, resulting in decreased blood flow, leading to fetal hypoxia and ischemia.[1-4] There are no reported teratogenic effects of mifepristone.[1-4]

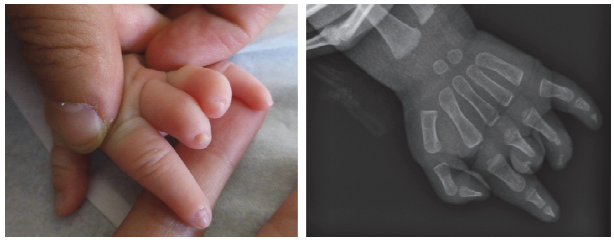

Figure 1. Brachydactyly of the third, fourth and fifth fingers of the left hand.

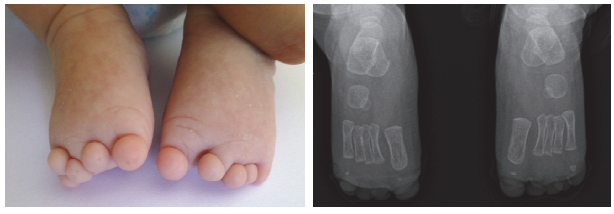

Figure 2. Brachydactyly of all toes.

In this type of minor anomalies, a differential diagnosis with congenital malformation syndromes (Grebe, Moebius, and Adams-Oliver syndrome) is important. In this clinical case, a causal link was established with the teratogenic effect of misoprostol, together with the absence of other malformations present in the aforementioned syndromes.

Medical pregnancy termination has been declining in our country over the last few years, in which Portugal is below the European average. The medication method is the most commonly used (72%) where misoprostol and mifepristone have an efficacy rate of around 98%.[5]

With this case, we want to emphasize the misoprostol teratogenic effects and the importance of an adequate follow-up to confirm the success of medical pregnancy termination.

Keywords: Abnormalities, Drug-Induced; Abortion, Legal; Brachydactyly/chemically induced; Infant, Newborn; Misoprostol/adverse effects

WHAT THIS REPORT ADDS

- Pregnant women exposed to misoprostol present a risk for congenital fetal anomalies two to three times greater than non-exposed women.
- Misoprostol has many teratogenic effects documented in several studies.
- In medical pregnancy termination, it is essential that there is a follow-up to confirm the success of the procedure.

Conflicts of Interest

The authors declare that there were no conflicts of interest in conducting this work.

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Consent for publication

Consent for publication was obtained.

Confidentiality of data

The authors declare that they have followed the protocols of their work centre on the publication of patient data.

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