

Case Report

Medicolegal issues of Mermaid syndrome (Sirenomelia)Vidanapathirana M^{1*}, Gunathilaka KMTB²,¹Senior Lecturer, Department of Forensic Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura.²Consultant Judicial Medical Officer, Teaching Hospital Batticaloa, Batticaloa**Abstract**

Sirenomelia is a rare congenital deformity in which the legs are fused together giving them the appearance of a mermaid's tail. It is usually fatal within a day or two of birth.

We describe a mermaid syndrome in a baby born to a 38 year old mother by lower segment cesarean section. This is her second pregnancy and first child died with meconium aspiration. Antenatal diagnosis of this condition has failed in this case in spite of routine Ultra Sound scan. However, because of her advance age anomaly scan could have done. There is an obvious chance of missing the diagnosis of mermaid syndrome during the routine examinations.

Even it was diagnosed early; there are no legal provisions for a legal abortion unless the mother's life is in danger. Amendments to the existing laws of legal abortion by including at least fatal congenital anomalies as an indication and making the anomaly scan more regular are suggested to uphold the rights of mothers.

Key words: Sirenomelia, Routine scan, Anomaly scan, Legal termination**Copyright:** © 2014 Vidanapathirana M *et al*. This is an open access article distributed under the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.***Correspondence:** mudithavidana@gmail.com**Cite this article as:** Vidanapathirana M, Gunathilaka KMTB. **Medicolegal issues of Mermaid syndrome (Sirenomelia).** *Anuradhapura Medical Journal* 2014;8(2):37-39.**DOI:** <http://dx.doi.org/10.4038/amj.v8i2.7527>

Introduction

Mermaid syndrome or Sirenomelia is a rare congenital anomaly in which the legs are fused together giving an appearance of a mermaid. This condition is found in approximately one out of 100,000 live births and as rare as conjoined twins (1). It is usually fatal within a day or two because of the complications associated with abnormal development of the kidney, urinary bladder and its function (2).

Case presentation

A 38 year old mother delivered a full term baby of 2.3 kg by a Caesarian section (LSCS) at a tertiary care hospital (Fig. 1).



Figure 1 External appearance

The upper torso was normal and the lower limbs were fused. The external genitalia were absent. The indications for LSCS were elderly mother and a precious baby. A routine 12 weeks Ultra Sound Scan had showed oligohydramnios. Her first pregnancy was a still birth due to meconium aspiration.

The child survived for 5 hours and the autopsy revealed enlarged spleen and agenesis of kidneys and bladder (Fig. 2).

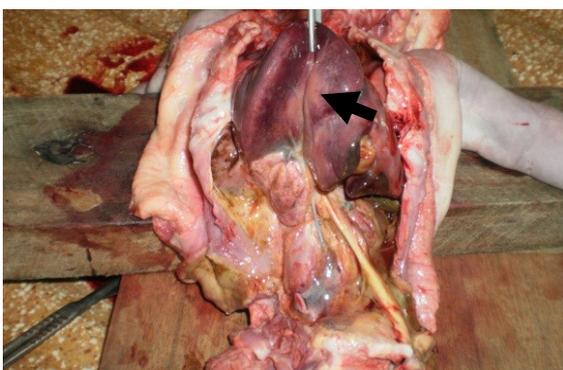


Figure 2 Agenesis of the bladder (arrow)

Discussion

Sirenomelia is associated with anomalies of pelvic or urogenital organs including bladder, kidney, rectum and external genitalia (2). Most cases are still births and the infants born alive rarely survive beyond the neonatal period. It is usually fatal within a day or two of birth due

to congenital anomalies and has strong association with maternal diabetes (3).

The medicolegal issues found in this case were: the antenatal diagnosis of this condition has failed in spite of routine Ultra Sound (US) scan; even though it was diagnosed, this pregnancy could not be terminated due to legal implications in Sri Lanka; and the LSCS would further delay another pregnancy in this elderly mother.

Sirenomelia can be diagnosed during the first trimester by US scan and the earliest documented case was at the 9th week of gestation (4). A routine US scan should be performed 4-6 weeks after the initial 8-9 weeks scan and the gross structural anomalies of Sirenomelia can be detected (5). Lower extremity fusion and bilateral renal agenesis are helpful in the US diagnosis of Sirenomelia. But oligohydramnios can prevent a clear view of the fetus by US scan (6). Though a routine dating scan had been performed in this case at 12 weeks, the diagnosis of Sirenomelia would have missed due to oligohydramnios. If it was diagnosed early, this LSCS could have been prevented.

Anomaly scans are done usually at 20 weeks of pregnancy (7). Except for her advanced age, there were no indications such as previous abnormal babies, family history of abnormal disorders etc. to perform an anomaly scan. Blood vessel anomalies of Sirenomelia can be detected by antenatal colour-flow imaging (6). Serum markers for antenatal diagnosis of Sirenomelia are currently not available (6).

Even it was diagnosed antenatally, there are no legal provisions in Sri Lanka for a legal termination unless the mother's life is in danger. In other countries, laws have been implemented to terminate fatal congenital anomalies such as Sirenomelia and the pregnancy is terminated on the basis of US diagnosis (8).

Termination of pregnancy is freely available in the United Kingdom due to a broad interpretation of the abortion act of 1967. It permits abortion for a variety of reasons if certified by two physicians and it includes laws to terminate pregnancies involving foetal anomalies (9). According to the Human Embryology and Foetal Act (1990) of the United Kingdom, the therapeutic abortions can be performed even after 24 weeks (live abortions), when the foetus is physically or mentally handicapped.

Termination is available in India before 20 weeks of pregnancy for variety of reasons including rape and foetal anomalies. In countries such as New Zealand, South Africa, Israel, Columbia, Spain, Poland etc. also legally allow termination of foetal anomalies (10). Termination of pregnancy for birth defects is acceptable in Iran and more efforts are still being taken to convince the community and authorities to give more possibility for the termination of pregnancy for congenital anomalies (11).

Therefore, amendments to the existing laws of legal termination of pregnancy in Sri Lanka by including fatal congenital anomalies as an indication and routine anomaly scans are suggested to uphold the rights of mothers. As suggested by the International Federation of Gynecology and Obstetrics with the collaboration of Sri

Lanka College of Obstetricians and Gynaecologists and Family planning Association of Sri Lanka, initiated a programme on prevention of unsafe abortions and proposed the pregnancy following incestuous rape and fatal congenital anomalies as indications for legal termination in Sri Lanka in 2012 and awaiting cabinet approval (12). In 1995, such attempt of amending the abortion law was failed(13). Since India allows such legal terminations with its different religions and cultures, Sri Lanka should also

amend the laws and protect mothers from unsafe termination of pregnancies.

Funding

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Competing Interests

None

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