The prevalence and challenges of abandoned dead neonates in an African referral center

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Background **Dead neonates are often preserved in the mortuary pending until parents/caregivers' collect them for formal burial. This study reports the prevalence and challenges of abandoned dead neonates in an African referral center.**

Materials and methods **The clinical and mortuary records of all dead neonates at the University of Benin Teaching Hospital between January 2006 and December 2010 were retrospectively reviewed to determine the prevalence, influencing factors, and challenges of abandoned dead neonates.**

Results **A total of 1093 (22.9%) mortalities were recorded among 4781 neonates. The prevalence of abandoned dead neonates was 77.2% as 844 of the 1093 dead neonates were abandoned to the hospital and given mass burial by an assigned government agency after at least 3 months of abandonment. This was challenging as an average of 85 dead neonates were given mass burial every 6 months to decongest the mortuary. Of 618 illiterate parents/caregivers of low socioeconomic class, 520 (84.1%) abandoned their dead babies. This was extremely significant statistically when compared with 324 (68.2%) bodies abandoned by 475 literate parents/caregivers in upper/middle class ($P<0.0001$). Surgical neonates, neonates with obvious congenital anomalies, and babies from the third birth positions onward were mostly abandoned.**

Conclusion **We advocate the need for public enlightenment campaign to modify present parents/caregivers' attitudes toward dead neonates. Hospital-based postbereavement programs should be organized to help parents/caregivers adjust appropriately to neonatal deaths. Those with dead neonates should be exempted from paying hospital bills.** ***Ann Pediatr Surg*** **7:105–107 © 2011 Annals of Pediatric Surgery**

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Introduction

Neonatal mortality is still very high in many developing countries and many health facilities provide adequate mortuary services to the people [1,2]. As it is with older children and adults in this subregion, dead neonates are deposited and preserved in the mortuary, pending until relatives are able to collect them for formal burial [3–5]. Unclaimed bodies are usually given mass burial by an assigned government agency to decongest the mortuary [6,7]. Although instances of unclaimed bodies have been reported among dead older children and adults, the incidence may be higher among neonates in subSaharan Africa [3–5]. This is because some religious beliefs and cultural practices with regard to dead neonates, particularly those with obvious congenital anomalies, as taboos and as a punishment by the gods for past wrong doings [3–5,8,9].

The abandonment and the denial of formal burial for dead neonates could be seen as a form of child abuse and/or neglect. Many investigators have drawn attention to various forms of child abuse and neglect in Africa, but not much have been reported about the alarming rate of abandoned dead neonates to mortuary services [8,9]. Data on this may be crucial to the government in formatting policy aimed at discouraging the practice in this subregion as has been done in other centers [10,11].

This 5-year retrospective study was conducted to report the prevalence, influencing factors, and the challenges of abandoned dead neonates in an African referral pediatric center.

Materials and methods

This is a 5-year retrospective study on the prevalence and abandonment of dead neonates, which was conducted between January 2006 and December 2010 at the University of Benin Teaching Hospital. The hospital, which is located in Edo state, Nigeria, is a multi-departmental hospital with a referral pediatric surgical/medical center and provides standard mortuary services to Edo and neighboring states.

Dead neonates at the Neonatal Intensive Care Units, Pediatric Emergency Department, Pediatric Surgical Wards, and Pediatric Medical Wards were deposited and preserved in the mortuary unit pending for a claim by their parents/caregivers for formal burial. During the period, after at least 3 months of deposition in the mortuary, an advert was published in the news media to notify the public of the intention of the hospital to give a mass burial for all unclaimed bodies. All the bodies still unclaimed 21 days after the publication were given mass burial by an assigned government agency. The files of all dead neonates managed during the study period were retrieved from medical record department, after which

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the biodata, birth position, clinical diagnosis, causes/factors contributory to death, and the socioeconomic status of parents/caregivers were abstracted. Thereafter, the clinical information was correlated with the prevalence and challenges of dead body abandonment, which were abstracted from the neonatal day books in the Pathology Department.

The data obtained were analyzed with Excel Analyze-it for counts, frequency, and percentages. Continuous data were compared with the Student's *t*-test, whereas categorical data were analyzed using the χ^2-test, with a *P* value of 0.05 or less regarded as statistically significant.

Results

In total, 4781 neonates were treated in the study center for over 5 years; 3651 neonates were delivered at the center, whereas 1130 were admitted from peripheral hospitals in compromised clinical conditions. An overall 1093 (22.9%) mortalities, which occurred mainly among the referred babies ($P < 0.0001$), were recorded. All the dead bodies were deposited in the mortuary and no dead body of neonates from other centers was admitted to the mortuary during the period. The dead neonates consisted of 653 boys and 440 girls (ratio: 1.5 : 1). As shown in Fig. 1, the highest mortality (62%) was recorded among neonates who were aged 1 week and below. This dropped in inverse proportion with the babies' age to 6% among those aged above 22 days.

Factors that contributed to the deaths ranged from lack of facilities to manage the neonates in 998 (91.3%) cases through neonatal sepsis in 611 (55.9%) to bartered babies recorded in nine (0.8%) cases, as depicted in Table 1. The parents/caregivers of 618 (56.5%) dead babies were illiterate and of a low socioeconomic class. Financial constraint experienced by the parents/caregivers of 309 (28.3%) babies, repulsion toward obvious congenital anomalies by 301 (27.5%), avoidance of community stigmatization by 118 (10.8%), and the fear of giving birth to more neonates with similar pathology by 331 (30.3%) also influenced the standard of care, the recorded mortality, and abandonment of the dead neonates. After at least 3 months of deposition in the mortuary, only 249 (22.8%) of the bodies were claimed by the parents/caregivers for formal burial, whereas the remaining 844 (77.2%) were abandoned to the hospital. The prevalence rate of abandoned dead neonates during the period was 77.2% (844 of the 1093).

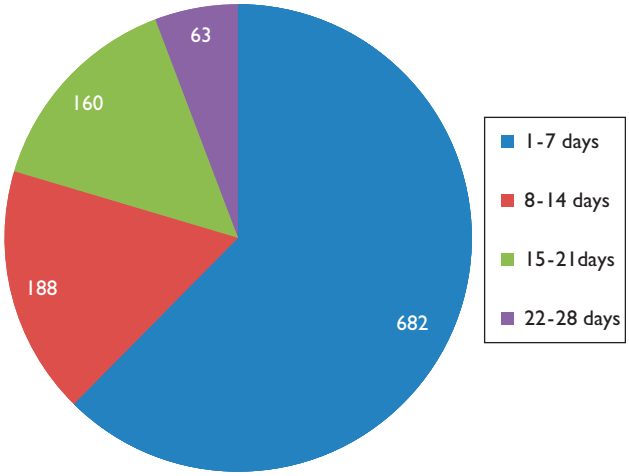
After formal approval by the government, the abandoned bodies were given mass burial. Of the 844 abandoned bodies, 398 (47.2%) were surgical neonates of which 341 (40.4%) had congenital anomalies at birth, including the 301 (35.7%) that were obvious and/or repulsive to their parents/caregivers. Although cases of abandonment affected all birth positions, there was a steady increase observed from 50% recorded among babies who were first born to 89.3% among those in fifth birth ranking as shown in Fig. 2. The age of the parents/caregivers and the sex of the dead babies did not influence abandonment when young/old parents/caregivers and abandoned male/female babies were compared ($P = 0.071$). However, all educational/socioeconomic classes abandoned their dead babies.

Table 1 Clinical diagnosis and factors contributing to the death of 1093 neonates during the period

Variables	Numbers	Percentage
Gastrointestinal lesions	403	36.9
CNS lesions	122	11.2
Cardiopulmonary lesions	86	7.9
Multiple congenital anomalies	205	18.8
Ventral wall defects	96	8.8
Genitourinary lesions	21	1.9
Musculoskeletal lesions	18	1.6
Neonatal sepsis	611	55.9
Preterm	225	20.6
Perinatal mishaps	91	8.3
Anesthetic complications	89	8.1
Lack of neonatal facilities	998	91.3
Multiple gestation	53	4.5
Abandoned babies	12	1.1
Battered babies	9	0.8

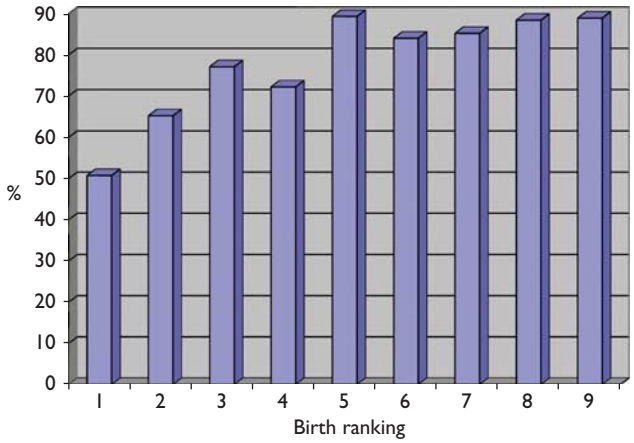
CNS, central nervous system.

Fig. 1



Age distribution of dead neonates.

Fig. 2



Correlation between birth ranking and percentage of abandoned dead neonates.

Of the 618 illiterate parents/caregivers in low socioeconomic class, 520 (84.1%) abandoned the bodies of their dead babies. This was extremely significant statistically when compared with 324 (68.2%) bodies abandoned by 475 literate parents/caregivers in upper/middle class ($P < 0.0001$).

Discussion

This study recorded a very high neonatal mortality rate of 22.9%, which corresponded with earlier studies in this subregion [1,2]. The male/female ratio of 1.5 : 1 recorded may have been due to more male neonates being admitted during the period and may not necessarily have reflected higher mortality among male babies. Neonatal mortality was found to be the highest during the first week of life, but this dropped progressively afterward. The high mortality recorded was influenced to a very large extent by the late presentation of the neonates, multiple congenital malformations, overwhelming resistant neonatal sepsis, and lack of facilities required to manage those who were clinically compromised. These factors made it very challenging to save neonates who were referred late from peripheral centers [1].

The study also revealed an alarming prevalence rate of 77.2% of abandoned dead neonates in this center, which may not differ significantly from that obtained in other centers in the subregion, as inferred by other studies [1,2,8,9]. The sex of the abandoned baby and the age of the parents/caregivers did not play any observable significant role in influencing dead neonates' abandonment. However, the probability of dead baby abandonment increased with birth positions. Consequently, more than 70% of dead neonates were abandoned from the third birth position onward, with the highest of 89.3% recorded among those in the fifth birth position in this study. It was observed that parents/caregivers who were illiterate, of a low socioeconomic class, and had difficulty coping with payment of hospital bills, were more predisposed to abandoning their dead babies to the hospital, perhaps as a means of evading payment of hospital bills and payment for mortuary services [9].

Other factors that were observed to influence dead neonates abandonment were obvious and repulsive congenital anomalies, poor association with the baby to avoid community stigmatization, the religious beliefs that such babies were taboos and punishment by the gods for past wrong doings, and the fear of giving birth to more neonates with similar pathology [3–5,8,9]. Other investigators reported that abnormal response to bereavement, the circumstances surrounding the death of the baby, and the poor parental hospital care after the death of their baby influenced the subsequently poor responsibility toward dead neonates in their setting [11–15]. In this study, the challenge of giving mass burial to abandoned dead neonates was enormous during the period. This was because of the average of 85 dead babies (844 dead babies in 5 years) who had to be given mass burial every 6 months to decongest the mortuary unit, as emphasized by other investigators [6,7,16,17].

Conclusion/recommendations

This study revealed a high neonatal mortality and a very alarming high prevalence and challenges of abandoned dead neonates. Surgical neonates, especially those with obvious congenital anomalies and babies from the third birth position onwards, were mostly affected. There is a need for increased public enlightenment campaign for parents/caregivers and family physicians to refer sick babies early for treatment and to modify the present attitudes of parents/caregivers toward dead neonates, especially those with congenital anomalies. Hospital-based postbereavement programs should be organized for parents/caregivers who have just lost their babies to help them adjust to the loss appropriately. The government should make free treatment available to neonates and pay regular home visits to bereaved families.

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