

## Concerns Regarding Pediatrician's Certificate of 'Neonatal Wellbeing' for Puerperal Sterilization

In a recent article [1], the authors describe the process of issuing 'well baby certificates' to 1668 babies whose mothers opted for puerperal sterilization within a week of delivery. It is mentioned that 210 of these babies weighed less than 2.5 kg, out of which 17 weighed less than 2 kg (16 small for gestational age and one preterm). We have some concerns regarding the observations of the authors.

Babies weighing less than 2.5 kg, small for gestational age and premature babies are known to be high risk infants [2]. Low birth weight is associated with high neonatal and infant mortality [2]. It is therefore, surprising to note that these high risk infants, known to be at increased risk for neonatal and post-neonatal deaths have been classified as 'well babies' and issued pediatrician's certificate for 'neonatal well being'. The birth weight and gestational age criteria chosen by the authors to define a well baby need to be clarified.

Secondly, it is imperative that a follow up be done to see how many of these 1668 babies were alive and thriving well at least till one year of age. This is especially important in a developing country like India where infant mortality rate is very high (57 deaths per 1,000 live births according to NFHS-3) [3]. In addition, data regarding morbidities such as congenital malformations, metabolic disorders, growth and developmental abnormalities that may not have manifested in the neonatal period also need to be assessed.

Thirdly, the National family planning programme does not contain a provision for a formal pediatrician's signed 'certificate' in order to mandate puerperal sterilization [4]. It is unclear whether the 'well baby certificates' issued by the authors are a part of the authors' hospital policy or departmental protocol. The legal standing for such a certificate is also unclear. Taking into account the relative uncertainty regarding the health of the newborn, pediatricians may potentially face litigations for issuing such 'certificates', especially in the absence of screening for disorders such as inborn errors of metabolism, hypothyroidism, cardiac or other structural abnormalities. Couples should be therefore counseled regarding these issues and written informed consent should be taken explaining these facts in case they opt for puerperal sterilization. In fact, some authorities have suggested doing away with puerperal

sterilization [5], encouraging couples to delay sterilization till the child is 12 months or older (when the baby would have survived the precarious time after delivery to guarantee its survival, proper growth and development) along with increasing the availability of effective reversible contraceptives, as options that India may consider to avert post-sterilization regret. This seems to be a prudent and rational approach, given the high prevailing infant and neonatal mortality rates in India.

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### REPLY

1. *Concern regarding low birth weight babies getting well baby certificates:* The Coimbatore Medical College Hospital predominantly caters to people of low socioeconomic status with inadequate maternal nutrition and therefore quite a sizable proportion of the neonates born here are low birthweight. But they are frequently small for date babies (SFD) with no other significant neonatal problems and are nursed by mother's side with monitoring of blood sugar. Babies more than 2 kg who are roomed in with the mother usually have no other neonatal morbidities and hence receive well baby certificates. Those less than 2 kg and who have been discharged from neonatal intensive care unit to mothers side also received well baby certificates if they are term SFDs with birth weight >1.8 kg and have no other neonatal problems (10 of the 17 babies weighing less than 2 kg in our study). Near term neonates (35 or 36 weeks) with birth weight less than 2 kg are discharged to mother's side after a brief stay in NICU if they are

asymptomatic but they don't usually receive well baby certificate for immediate puerperal sterilization.

2. *Comments upon the requirement for well-baby certificates:* Getting paediatrician certificate for neonatal well-being is an established age old practice in Tamilnadu both in government and private sectors. It is clearly mentioned in a recent WHO document that 'Because female sterilization is permanent careful counselling is important to make sure that woman will not regret her decision (to undergo puerperal sterilization)' [1]. As discussed in our paper and agreed in the comments on our paper, infant death is the important cause for regret in developing countries and so ensuring a well-baby certificate for the neonate by the paediatrician is entirely in order. Although this process is not explicitly mentioned in our Ministry of Health reference cited in the commentary, in page 11 of that reference it has been mentioned that 'A delay of upto 7 days (for doing postpartum sterilization) may be justified in situations which demand a more accurate assessment of the baby's chances of survival' [2]. Paediatrician's certificate of baby's well-being is thus included therein.

3. We fully agree with the authors' comment that informed consent be taken mentioning the drawbacks of one time physical examination and certification process of neonatal well-being. Our one year observational study was not designed for a further one year follow-up because of logistic problems. Even during our study period, two babies were brought back with ventricular septal defects that became evident after the certification process. It has to be noted that 65% of women using birth control measures in 2007-2008 preferred female sterilization, and states like Tamilnadu, Andhra Pradesh, Karnataka and Kerala have achieved replacement fertility levels by offering minilap tubectomy on a regular basis throughout the year [2].

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## The Real Need of the Hour

During a recent surge in the number of dengue cases in central and southern Tamil Nadu, we handled a number of referrals from the surrounding rural areas in our nursing home. While analyzing a total of 50 children with a diagnosis of dengue during the month of December 2012, we came across results which probably merit serious rethinking about our approach to early diagnosis and appropriate management of infectious diseases.

Of the 50 patients, 12% were below 1 year of age and 64% were above 5 years with a slight male predominance (60:40). Warning symptoms were present in 40% of cases and was usually vomiting or epigastric pain. Two children had petechial and purpuric spots and no child had significant mucosal or systemic bleeds. Only one child (2%) has evidence of significant plasma leakage and compensated shock requiring fluid resuscitation. 4 children (8%) showed evidence of fluid overload (2 children had ascites and 2 children had ascites with pleural effusion) but this did not cause respiratory embarrassment or warrant diuretic therapy in any case. 44

children (88%) were referred because of positive NS1 antigen and 6 children due to positive IgM antibodies to dengue. Significant pruritus was present in 16 cases (32%) and was noticed to herald recovery from the illness in these children. Thrombocytopenia (platelet count < 100,000/mm<sup>3</sup>) was present in 22 cases (44%). None of the patients required blood component therapy. Regression analysis showed that thrombocytopenia was a poor indicator of bleeding tendency and positive NS 1 did not show co-relation to thrombocytopenia, presence of warning signs or fluid overload.

While none of the findings are new or suggest any change in the existing management of the illness, we feel that many of the patients and the treating pediatricians were unnecessarily traumatized because of a positive antigen test. This made us recall a perspective on early diagnosis of febrile illness in the journal [1]. In that article, it was argued that as infectious diseases are a major cause of mortality in children and also placed tremendous economic burden on the country, early diagnosis of infectious disease is the need of the hour [1], and the case for NS 1 antigen in dengue was well made out. NS1 assays are very useful in the diagnosis of dengue with high sensitivity and specificity [2]. In our case, we noticed a reverse of the predictions with an increase in