

their functionality may require more insights before launching a large scale program. Innovative options like Friendly Corners in Thailand and One Stop Shop in Philippines, set in unusual venues like shopping malls, youth centers are being used to attract youth to use government services. Using peers as change agents in the community in a rural block of Haryana to reach out of school adolescents has been quite encouraging(3).

The policies in the country should be favourable for promoting healthy life styles in adolescents. For instance, non availability of contraceptives for unmarried adolescents perpetuates unsafe sex even in presence of knowledge about HIV/AIDS. In conclusion, an integrated approach for AFHS with focus on ASRH, ensuring the adolescent friendliness of health facilities/providers and developing intersectoral linkages to make health services accessible to all adolescents in the background of conducive political

commitment and policies, are key challenges in addressing the ASRH.

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Subdural Effusion or Empyema in Infants

The report on subdural empyema by EK Ranjini and colleagues alerts us to the severity of pneumococcal meningitis in young infants(1). Of the three infants in their series with pyogenic meningitis complicated by subdural empyema, two died and the third was taken home moribund, in spite of accurate diagnosis and appropriate treatment. There are several important lessons to be learned from this report.

It is probable that delayed detection and

drainage of subdural empyema might have contributed to the tragic outcome. Usually subdural empyema/effusion develops a few days after the onset of meningitis. Obviously there was delay either in the recognition of serious illness in these babies by the parents, or in seeking medical care. It is possible that the first port of call by the parents was not this tertiary care hospital, but some other station where delay might have been compounded. Every doctor caring for children must remember that pyogenic meningitis is a medical emergency and any delay, even of a few hours, may turn the table on prognosis. In every community parents of infants require easy access to some one who would

recognize signs of serious illness and direct them to the nearest station for care. This concept of an 'infant's advocate' was proposed earlier(2). It is unlikely that major reduction in infant mortality rate can be achieved in India without improving access and utilization of quality medical care in rural and urban poor communities(2).

There are lessons to be learned on subdural effusion itself. An earlier and more comprehensive study in the same department as of the authors had described how common subdural effusion or empyema may be in infants and young children with pyogenic meningitis(3). During one calendar year we had treated 20 infants and very young children with pyogenic meningitis and tapped the subdural space of twelve of them who had some indication (as listed below), and nine (45%) indeed had subdural collection—either pus or highly proteinaceous but sterile effusion(3). During the previous 6 years there were 67 cases of pyogenic meningitis and among them 13 (19%) had subdural fluid collection(3). The reason for this difference in frequency was that in the earlier years subdural taps were done only after the diagnosis of subdural effusion was reasonably firm, but in the year under study 'proof taps' were done on suspicion(3). Taps were done along the coronal suture, at the lateral most points of the anterior fontanelle. Both sides were tapped irrespective of the yield on the first site. The definition of subdural collection was the presence of 2 ml or more of fluid on either side, provided the fluid was markedly different from the CSF obtained at the lumbar puncture nearest in time from the subdural tap. Thus we made sure that we were not collecting CSF. Once the diagnosis of subdural effusion was confirmed, taps were repeated daily or on alternate days until fluid was no longer obtained. In one child burr

holes were made for effective drainage of pus that was too thick to run through a 20-gauge needle. It appeared that early detection and repeated removal of fluid improved the speed and degree of recovery(3).

I recommend the following indications to do 'proof taps' of the subdural space. If the spinal tap brought our frank pus, antibiotics are started immediately (even pending smear results), the baby's general condition stabilized and then subdural taps should be done. In all other situations, the infant's progress on treatment is assessed repeatedly every day and any reason to suspect lack of satisfactory progress is an indication to do diagnostic subdural taps. Such indications include slow defervescence of fever, reappearance of fever while on treatment, seizures in spite of general improvement, persistence or reappearance of fontanelle bulge, deterioration of mental status, development of hemiparesis and any increase in head circumference. In case of effusion, daily taps are recommended to drain the fluid.

In our study, the etiology of meningitis was identified by CSF culture in 70 of the 87 cases and by Gram stained smear in two additional cases(3). *Hemophilus influenzae* was found in 33 (38%), *Streptococcus pneumoniae* in 29 (33%), *Streptococcus pyogenes* in 8 (9%) and *Neisseria meningitides* in 2 (2%). In 15 (17%), no organism could be identified. Subdural effusion was found in 11 children with *H. influenzae* meningitis, 6 children with pneumococcal meningitis, 2 children with Hemolytic streptococci and in 3 children with unknown etiology.

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Rapid Enteral Feeding in Preterm Neonates: NEC and Survival

Drs. Salhotra and Ramji must be congratulated on publishing the randomized controlled trial on fast advancement of enteral feeds(1). The write-up however ignores mortality from different causes, in the two groups. There seems to be an important message, which needs to be highlighted.

In the slow advancement of feeds (slow fed) group 53.8% completed the trial – the rest died (mortality 46.2%). In the fast advancement of feeds (fast fed) group, 74% completed the trial and only 26% died. 10 babies in the slow fed group died of sepsis compared to 3 in the fast fed group. Babies fed slowly, regained birth weight later. Their poor nutrition probable made them more vulnerable to infections.

Two babies in the fast fed group died of necrotizing enterocolitis (NEC), compared to none, in the slow fed group. These babies with NEC, also developed sepsis. Even

adding these, the total deaths from sepsis was 5 in the fast fed group. The death in the slow fed group was twice this number.

The death from sepsis is often slower and less dramatic than that from NEC and physicians do not recall it, that easily. What sticks in the mind is the odd case of NEC, developing in a child with rapid advancement of feeds. It requires a randomized-control-trial, like the present one, to bring out the increased mortality in the slow fed group. The present study suggests that every effort must be made to advance feeds rapidly, notwithstanding the slightest increase in NEC.

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