be an expression of increased intracystic pressure compensating for the raised intracranial pressure during fetal life. The elasticity and the compliance of the meningocele sac acts like a vent for CSF and is probably life saving preventing dangerous elevation of intracranial pressure. The grotesque external appearance is due to the centrifugal expansion of the occipital meningocele. The presence of incomplete internal septae caused a ‘trap door’ effect and consequent further expansion of the meningocele sac. The difficulties of feeding, handling and ordinary care are great as well as the psychic trauma to parents in the presence of disfiguring and unconcealable mass, that earliest possible excision is highly desirable. The anterior fontanelle was lax and the sutures were wide open despite ventriculomegaly. It is a matter of speculation whether an initial cystoperitoneal shunt would have appreciably reduced the giant size of the meningocele. There is a increased likelihood of developing decubital ulcers due to restricted head movement caused by the occipital lesion in addition to the high probability of shunt infection and frequent shunt malfunction. It is also postulated that resection of the cyst wall rarely gives permanent relief since there is a generalized dysgenesis. A ventriculo-peritoneal shunt may be inserted for symptomatic progressive hydrocephalus and/or associated aqueductal stenosis.

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Cost of Syrup versus Capsule Form of Vitamin A

We read the article entitled “Cost of syrup versus capsule form of vitamin A supplementation” with great interest and found it informative. The authors have compared the cost of supplementing vitamin A in the form of syrup versus capsules in the research manuscript but in the conclusion authors have interestingly recommended use of applicaps for vitamin A administration. However, the existing scientific evidence indicates that supplementation of vitamin A should be continued in the form of syrup as presently being done in India under the “National Program of Prevention of Nutritional Blindness due to vitamin A Deficiency” because of the following reasons.

(i) The present study was descriptive in nature and no mention has been made of total number of Anganwadi workers and Auxiliary Nurse Midwives (ANMs) included in the study. The functionaries interviewed for distribution of vitamin A were from a research project area who may not be true representatives of
Anganwadi workers, ANM and Lady Health Visitors (LHVs) involved in supplementation of vitamin A under the existing national program.

(ii) Applicaps for administration of vitamin A which have been recommended by the authors have been documented to provide inaccurate dose of vitamin A. Keeping in view of this fact, WHO and UNICEF have recommended the use of multi-dose liquid dispensers (2). The results mentioned in Table II of the article indicate that the wastage of vitamin A was almost similar when vitamin A was administered in syrup form vis-a-vis capsules or applicaps (1.111 vs 1.0204).

(iii) The authors have not mentioned any reference for the data presented in Table III on “non-economical issues” related to vitamin A capsules, applicaps and solution. The facts mentioned in the table appear to be based on their personal observations.

(iv) To modify the mode of vitamin A supplementation from syrup to capsule form in the existing national program, the following issues also need to be considered.

(a) Two types of capsules one with one lakh units (for infants) and the other with two lakh units (for 1-3 years) will be required.

(b) Training of the 1,60,000 ANMs, 23,000 LHVs and 5,17,100 Anganwadi workers (3) will have to be undertaken so as to prevent recurrence of overdosing of vitamin A and consequent fatal accidents in young children as happened in Assam.

(c) Presently, two types of gelatin capsules are commonly used in pharmaceutical industry, one derived from pork skin by hydrolysis with an acid and the other from bones and skin of other animals by hydrolysis with an alkali (4). Currently, all the gelatin capsules available in India are made from animal bones. According to pharmaceutical industry the capsules of vegetarian origin would increase the price by four to six times (5).

(d) In the past, discovery by population that manufacturers were using lard to process vanaspathi in India caused an upheaval. The use of non-vegetarian based vitamin A capsules under the national program could open another Pandora’s box.

In conclusion, before adopting administration of vitamin A by capsules or applicaps in India the issues discussed in this communication should be carefully examined.

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Reply

We have not recommended the use of applicaps but only suggested that the government should review the current practice based on recent information including that of the cost. We are open to the final choice of delivery mechanism after a thorough review process. In fact, Dr. Kapil, is suggesting continuation with the syrup form despite earlier recommendation that vitamin A capsules of 100,000 be made available to the workers to give along with measles vaccine (1).

Our rebuttal to other specific issues is as below:

1. The total number of sessions with ANM has been mentioned as two in the paper. The number of Anganwadi workers has not been given but it was four workers. The workers were used to estimate the time consumed in giving a dose and for wastage estimations. Though, the study was done in the Field Practice area of Ballabgarh, the ANM used was the one from Haryana government.

2. Incorrect dosing is always possible in any form of delivery but the issue is the frequency and the probability of this occurring. We need objective data to compare the possibility of incorrect dosing with different forms of delivery (syrup, capsules or applicaps).

3. Dr. Kapil may feel that a wastage of 2% and 10% (as can be deduced from the wastage factors mentioned) are similar. We do not share this perception.

4. The issues raised in Table 3 are based on national and international experience of the authors.

5. There is no need to make two types of capsules. Children needing 200,000 IU would need to take two capsules of 100,000 IU.

6. Training cost has not been included and was clearly mentioned in the text. Training costs are treated as capital costs. Thus, they are one time costs which are spread over a large time period during which large number of doses of vitamin A would be given. Thus, the actual contribution to a single dose, would be negligible.

7. The non-vegetarian issue has been referred to in the paper.

We agree that the issue of vitamin A delivery system needs careful review. In addition there are now different delivery systems available including the multi-dose dispensers and we would encourage and request the government to undertake a thorough review before opting for anyone of them.

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