self, did not ask for food, and did not attend his office. He did not recognize his immediate relatives including his wife with whom he was living. This lasted for 10 days and on the 11th day, he woke up early, got ready to go to work, and did everything normally as before. He was not aware of these 10 days and totally denied any such statements about him during this period. This pattern repeated every month.

I admitted him to the hospital during one such occasion, and he was observed for the above signs and symptoms. He remained in the ward until he came out of the post-ictal phase. He underwent EEG which showed bitemporal epileptic discharges with theta-dominated background activity. His CT brain scan was also normal.

He was started on high doses of carbamazepine, 1200 mg per day, supplemented with oral chlorpromazine, 50 mg at bedtime for 2 weeks. The patient remained asymptomatic and improved very well. Now he takes 800 mg of carbamazepine as a maintenance dose and is fit-free for the past 24 months.

Should we call this as a prolonged post-ictal phase or post-ictal confusional state, or more aptly a "10-day psychosis"?

Dr. H. N. Ranganath
Al-Shaty Teaching Hospital
P.O. Box 17271
Jeddah 21484, Saudi Arabia

Relationships Between Height and Weight of Saudi Children

To the Editor: The anthropometric measurements of children at given ages are used in most countries as indicators of nutritional status. In particular, height and weight growth are considered to be the most sensitive indices of population health.[1,2] The study of growth has also become an essential tool in investigation of children's health-related problems faced routinely by pediatricians, particularly in developing countries.[3]

The height-weight relationship (lawlike relationship) is an interesting concept proposed and applied by Ehrenberg[4] and later modified by Kpedekpo.[5] In this study Ehrenberg's approach to the relationship between average height and weight was tried for Saudi children under 6 years of age.

This pilot study was carried out between June 1984 and January 1985. A total of 4614 healthy Saudi infants and children under 6 years old were evaluated according to methods previously described.[1,2] The height and weight data were analyzed. The analysis consisted of determining if Ehrenberg's lawlike relationship ($\log \bar{w} = b\bar{h}+c$) was a good fit of $\log \bar{w} = 0.8\bar{h} + 0.4$ for the children studied.

The observed mean values $\bar{h}$ and $\log \bar{w}$ agreed closely with Ehrenberg's lawlike relationship. The fit was good to within the limits of an average of $\pm$ 0.01 log kg units (or less than 1 cm in height) for the mean values. However, the results for babies less than 1 year old were different. The mean height for boys, 0.62 meter, leads to a theoretical estimate of 0.89 log kg units given by $\log \bar{w} = 0.8\bar{h}$ + 0.4. This differs substantially, by 0.09 units, from the observed mean weight of 0.80 log kg units. The mean height for girls was 0.61 meter, which leads to a theoretical estimate of 0.89 log kg units. This differs substantially, by 0.06 units, from the observed mean weight of 0.83 log kg units.

We have observed that the general form of Ehrenberg's law is applicable to children living in Saudi Arabia, except babies under 1 year old where the results were significantly different. The results show that the growth patterns of height and weight of Saudi children are like those of children of other races, though Saudi children are consistently relatively light for their height.

Abdulbari Bener, PhD, FRSS
Department of Statistics
College of Science
P.O. Box 2455
Riyadh 11451, Saudi Arabia

Abdulrahman Al-Frayh, MD, Facharzt
Department of Pediatrics
College of Medicine
King Saud University
P.O. Box 2925
Riyadh 11461, Saudi Arabia

References

1. Al-Frayh AR, Wong SS, Bener A. The growth standards of Saudi infants and preschool children in Riyadh, Saudi Arabia. Collegium Antropologicum 1987;11(1):117-32.
2. Al-Frayh AR, Jabbar FA, Wong SS, et al. Growth and development of Saudi infants and preschool children. J R Soc Health 1987;107(1):15-8.
3. Huda S, Bener A. Estimation of correlation coefficient for growth measurements under age-grouping. Hum Biol 1988;60(2):341.
4. Ehrenberg ASC. The elements of law-like relationships. J R Statist Soc Am 1968;131:280-302.
5. Kpedekpo GMK. Heights and weights of children in Ghana. J R Statist Soc Am 1970;133:86-93.

Upper Gastrointestinal Bleeding During the Holy Month of Ramadan

To the Editor: The holy month of Ramadan is a month of fasting for Muslims. Patients with upper gastrointestinal (UGI) lesions are often exempted from fasting by prescription of their physicians on the basis that symptoms might worsen or complications may occur. Upper gastrointestinal tract bleeding is a complication often said to occur as a consequence of the action of unbuffered gastric acid on UGI lesions, in particular duodenal ulceration, thus leading to an increased prevalence of UGI bleeding during Ramadan. However, these claims have not been supported by convincing analysis.

We have reviewed episodes of massive UGI bleeding presenting to Jordan University Hospital during Ramadan for a 10-year period (1978-1987), and compared these to an equivalent nonfasting period. Massive UGI bleeding was defined as loss of 1000 mL or more of blood, estimated by a blood pressure of < 100/60 mm Hg or a postural decrease in BP of > 20/10 mm Hg, and/or a drop in hemoglobin level of a minimum of 10%, in the presence of hematemesis, blood per nasogastric tube, or melena at presentation. Cause of bleeding was diagnosed by endoscopy performed within 24 hours of admission. Chi-square test was used to assess differences between the number of bleeding episodes in the fasting and nonfasting periods.

Bleeding episodes during Ramadan months over the 10-year study period were aggregated and compared to the number of episodes presenting during an equivalent period of nonfasting months. We have noted previously that all UGI bleeding episodes, including those caused by duodenal ulcer, present less frequently in the months of April and September, than October to March (unpublished data). Ramadan is the ninth month of the Hejira (lunar) year, which is approximately 12 days shorter than the Gregorian year. During the 10-year period of this study, Ramadan has always fallen between the months of April to September, and we included the aggregate of the mean number of bleeding episodes counted for each of these months (with the exception of the Ramadan months) over the 10-year study period as the nonfasting control period in our analysis. This analysis was carried out for each of the total number of bleeding episodes as well as those due to duodenal ulcer.

There were slightly more bleeding episodes in the nonfasting months than the fasting months of Ramadan over the 10-year study period in respect to both the total number of episodes and those in whom duodenal ulcer was the source of bleeding (Figure 1). This difference, however, did not reach statistical significance. Thus, it would appear that there is no increased frequency of UGI bleeding episodes during the fasting month of Ramadan.

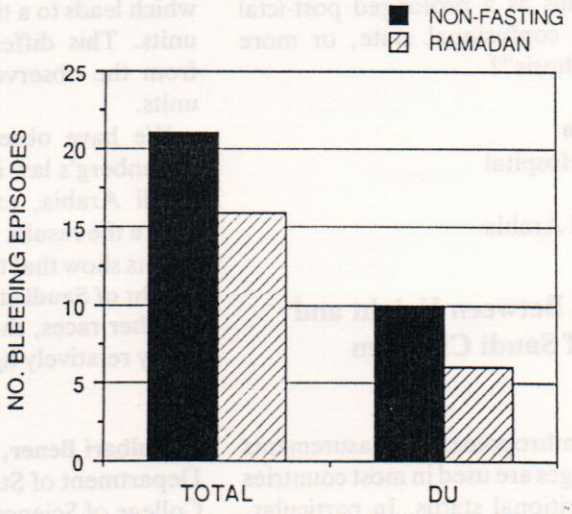

FIGURE 1. Number of bleeding episodes during Ramadan compared to the nonfasting control period, by total number of bleeds and those from duodenal ulcer (DU).

Ala U. Toukan, FRCP(C), FACP
Gastroenterology Unit
Jordan University Hospital
Amman, Jordan