Letters to the Editor

Determination of Anal Position Index

Usual anal position is described to be midway between the vaginal fourchette (scrotum) and the coccyx. Anal position index (API) is a simple method to evaluate anal position in the subjects. Bar-Maor and Eitan(1) were the first to describe this objective measurement as anogenital index that was later called API by Reisner, *et al.*(2). Positive correlation has been described between anterior displacement of anus and constipation at birth(3).

Three hundred and eighty seven children born at or attending the well baby clinic of the hospital were included in the study after obtaining consent from the parents.

Using the method described by Genc, *et al.*(4) anal position index was calculated as the ratio of anus-fourchette distance to coccyx-fourchette distance for females and anus-scrotum distance to coccyx-scrotum distance for males.

There were 300 males and 87 females in the study. It included 31 neonates, 313 infants and 43 children between 1-3 years of age. Mean API in males was found to be 0.43 (S.D. $\pm$ 0.05) while in the females the value was 0.37 (S.D. $\pm$ 0.06). Anterior displacement (Mean $\pm$ 2 S.D.) was present in 16 males and one female. There was no significant correlation of API with age, height and weight of the subjects. Children with anterior displacement of the anus did not give any history of constipation.

Anterior anus, anteriorly displaced anus, anterior ectopic anus, anteriorly located anus or short perineal body are synonyms for the same anomaly. It is believed to be due to malformation of the mid-portion of the external sphincter and weakness of corresponding segment of the anal canal(5). It is a controversial entity; however, several investigators claim it to be major cause of constipation. Leape, *et al.*(3) diagnosed the condition on the basis of clinical inspection alone. Bar-Maor and Eitan(1), Reisner et al(2) and Genc, *et al.*(4) determined API using various methods. There was no difference in the index in the newborns and the older children. Although Genc, *et al.*(4) did not find any correlation between location of the anus and constipation, surgical correction of the anomaly has been advocated for constipation due to anterior ectopic anus(3,5).

In the present study, API was found to be lower than that reported in the western literature. It could be due to lower body weight in our population or different technique used for measurement. We also did not find any positive correlation between anal position and constipation. We advocate that the children with abnormal anal position index alone should not be the sole indicator for surgical intervention and they should be kept under follow up for development of constipation and appropriate treatment after proper evaluation at that time.

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A Child with Guillain-Barré Syndrome Caused by Acute Hepatitis A Infection

To our knowledge, 20 patients with Guillain-Barré Syndrome (GBS) secondary to acute hepatitis A virus (HAV) infection have been reported in the literature. Only one of them was a child(1). We report another such case in a 6 year old boy who presented with pain and weakness in legs and difficulty in walking. His past medical history was unremarkable except for a jaundice two weeks back. Vital signs and anthropometry was in normal limits. Neurological examination revealed reduced power (2/5) and hypotonia in all extremities. Deep tendon reflexes (DTR) were absent. Other systemic examination was normal. Transaminases (SGOT: 1000 IU/dL, SGPT: 900 IU/dL) and bilirubine levels (total/direct bilirubin: 12/10 mg/dL) were elevated. Anti-HAV Ig M was positive and anti-HAV Ig G was negative in blood and cerebrospinal fluid (CSF); markers for hepatitis B virus (HBV) were negative. Cerebrospinal fluid revealed a protein concentration of 82 mg/dL, glucose of 41 mg/dL and no cells. Electromyograpy and nerve conduction velocity revealed a severe motor polyneuropathy associated with axonal damage in muscles and nerves in all extremities.

The patient was treated with 0.5 g/kg intravenous immunoglobulin (IVIG) for five days. He was discharged from the ward on the tenth day of admission. Physical examination at the end of the first month showed a 4/5 of the muscle power and positive DTR. Laboratory studies revealed normal liver function tests. The serum anti-HAV Ig M and anti-HAV Ig G were positive.

Guillain-Barré Syndrome occurring in the course of acute hepatitis caused by hepatotrophic viruses like cytomegalovirus (CMV), Epstein-Barr Virus (EBV), HBV and HAV have been reported previously(1-4). In patients who develop GBS after an acute viral hepatitis, demonstration of the specific viral antibodies in the CSF may confirm the central nervous system involvement(5).

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