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In summary, our findings support regular screening of children aged over five years for IP to enhance efforts at early diagnosis and treatment that could potentially decrease the incidence and intensity of STH and to emphasize the need for additional socio-cultural researches to formulate appropriate educational interventions for the community to limit transmission and avoid re-infections.

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Swan-neck sign of the big toe – association with hypocalcaemia

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SUMMARY The sensitivity and specificity of a new clinical sign of hypocalcaemia were evaluated. The Swan-neck sign, wherein infants with symptomatic hypocalcaemia keep their big toe hyperextended at the metatarsophalangeal joint and flexed at the interphalangeal joint, was looked for in 25 infants presenting with non-febrile seizures, alongside their serum calcium levels. The study showed that the sign had a sensitivity of 63.6% and specificity of 66.6%. (Predictive values of positive and negative tests were 93.3% and 20%, respectively.) This is compared with the standard Trousseau and Chvostek signs.

Introduction

Hypocalcaemia (serum calcium <7 mg/dL in neonates and <8 mg/dL in older infants) is one of the most common biochemical abnormalities causing seizures in neonates and older infants.¹ Other manifestations of hypocalcaemia are jitteriness, muscular twitching, tremors, tetany, carpopedal spasm and laryngospasm. The Trousseau sign (carpopedal spasm after arterial occlusion of an extremity for 5 min) and Chvostek sign (muscle twitching with percussion of the facial nerve) are evidences of the neuromuscular irritability induced by hypocalcaemia.

We have noticed some infants with hypocalcaemia keeping their big toe hyperextended at the metatarsophalangeal joint and flexed at the interphalangeal joint in a swan-neck-like posture (Figure 1). We undertook this observational study to evaluate how consistently this sign is present in babies admitted with hypocalcaemic seizures.

Materials and methods

The majority of infants presenting to our hospital with afebrile seizures have hypocalcaemia. It is our practice to investigate all such infants for evidence of hypocalcaemia. Infants admitted between March and August 2004, with seizures, with no preceding history suggestive of birth asphyxia and without fever, were examined for the known signs of hypocalcaemia, namely the Trousseau and Chvostek signs. The Swan-neck sign was also documented after the parents were told what we were looking for. To avoid bias, documentation of the Swan-neck sign was carried out before serum calcium results were available from the laboratory.

Data were entered into an Excel spreadsheet. Analysis to look for sensitivity and specificity of the Swan-neck

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Figure 1 Big toe hyperextended at the metatarsophalangeal joint and flexed at the interphalangeal joint in a swan-neck-like posture

sign, as compared with the sensitivity and specificity of the other two signs, namely the Trousseau and Chvostek signs, was performed.

Results

Twenty-five infants, who satisfied the entry criteria, were admitted during the study period. Hypocalcaemia was present in 22. Fifteen babies showed a positive Swan-neck sign. Of these, 14 had hypocalcaemia and one had normal calcium level. Sensitivity of Swan-neck sign was 63.6% and specificity was 66.6%. (Predictive values of positive and negative tests were 93.3% and 20%, respectively.)

Three babies showed positive Trousseau sign and all of them had hypocalcaemia. Trousseau sign had a sensitivity of 13.6% and a specificity of 100%. (Predictive values of positive and negative tests were 100% and 13.6%, respectively.) Chvostek sign was not elicited in any of the babies. In this cohort, sensitivity of Chvostek sign was poor (0%).

Discussion

Hypocalcaemia needs to be identified and treated expeditiously, sometimes even before the laboratory evidence is available, because of potentially dangerous manifestations, such as laryngospasm and seizures. Intravenous calcium administration has its own risks. A sensitive sign of hypocalcaemia could be of help in taking the crucial decision to administer intravenous calcium, pending laboratory confirmation. In this cohort, the Swan-neck sign had greater sensitivity to pick up hypocalcaemia than the Trousseau and Chvostek signs.

Hypocalcaemia was seen in 22 of the 25 babies studied. This is a very selected group, as we excluded babies with a history of birth asphyxia and those with fever. We have previously reported that vitamin D deficiency is common in the city of Delhi.^{2,3} This has also been the experience of others as well.⁴ The frequency of hypocalcaemic seizures in this area is attributed to vitamin D deficiency.

This study is only a preliminary report of a new clinical sign. One baby without hypocalcaemia had positive Swan-neck sign. Larger studies are required in other populations, where hypocalcaemia is less common, before we can be certain about the specificity of the sign.

One drawback of this study is that we have depended on total serum calcium levels rather than the ionized

calcium levels. Seizures are related more specifically to ionized calcium levels.

We had not sought formal ethical approval for this observational study, as the observations were made as part of the routine clinical examination of the child with afebrile convulsions. The additional examination for the swan-neck entailed no risks. Larger studies involving babies without convulsions will necessarily need ethical approval and such studies need to be undertaken before the real specificity of the sign can be ascertained.

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Childhood circumcision: a planned approach

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SUMMARY We prospectively reviewed 3824 boys circumcised during two circumcision festivities. The boys were circumcised in their respective houses under aseptic conditions by teams of nurses, midwives and surgical aids locally trained for that purpose. Complications were seen in 2.3% of the boys, the commonest being infection that was easily controlled by local wound care.

Introduction

Circumcision is one of the oldest known surgical procedures and its frequency is increasing. In the USA, neonatal male circumcision increased from 48.3% between 1988 and 1991 to 61.1% between 1997 and 2000.¹ In South Korea, the current rate of male circumcision is 60% compared with 0.1% in 1945.² Similar trends have been reported from Africa.^{3,4} This increase has been attributed to increased recognition of the medical benefits of circumcision. Circumcision significantly reduces the risk of contracting human immunodeficiency virus infection.⁵ Circumcision also reduces the risk of developing carcinoma of the penis and urinary tract infection.^{5,6} Recently, circumcision status has been shown to considerably influence sexual practice.⁶

Ritual circumcision is widely practised among African tribes. The boys are circumcised in groups by a traditional