LETTERS TO EDITOR

ABNORMAL RADIAL ARTERY IN DOWN SYNDROME: A RARE BUT CLINICALLY IMPORTANT ASSOCIATION

Sir,
Down syndrome (DS) is the most common chromosome disorder and the single most common genetic cause of moderate mental retardation.¹,² Its incidence in live births is approximately 1 in 750.¹,²

We report a 3-year-old boy with DS in whom radial artery pulsations were incidentally detected to be bilaterally absent. Bilateral radial artery and all other peripheral pulsations were normal. His blood pressure in right upper arm was normal, 96/66 mm Hg. Two-dimensional echocardiography was normal. Doppler ultrasonography of the arterial trunks of the upper limbs suggested normal ulnar artery waveforms up to the wrist joints and absent radial artery waveforms. Aortogram and bilateral upper limb angiography were performed. This revealed a vestigial right radial artery (absent except in proximal 3 cm) and a hypoplastic left radial artery [Figure 1]. The aortogram was normal and it did not reveal any associated arterial or venous malformations.

Anti-nuclear antibody titers and anti-double-stranded DNA titers were negative.

Per se, in human beings, anomalies of the radial artery are rare.³ Even standard textbooks or a recent large case series of 524 children with DS does not mention this aberration.¹,²,⁴ A vestigial or hypoplastic radial artery in a child with DS is of great clinical importance. Up to 40% of children with DS have congenital heart disease (atrioventricular septal defects, ventricular septal defects, isolated secundum atrial septal defects, patent ductus arteriosus, tetralogy of Fallot); and approximately 12% have gastrointestinal anomalies (duodenal/intestinal/anal atresia, Hirschsprung disease); which require surgical correction.¹,² Percutaneous radial artery cannulation is commonly used for continuous monitoring of blood pressure and estimation of arterial blood gases during the perioperative period. In a child with DS, this radial anomaly should be carefully looked for and even ulnar cannulation avoided, to prevent compromise of the circulation to the hand. Lo et al. have earlier reported abnormal radial arterial patterns in 11 children with DS, of which 8 had an associated congenital heart disease.⁵ However, none of these 11 children had a vestigial radial artery on one limb with a hypoplastic radial artery on the other limb.⁵ We have earlier reported abnormal radial arterial patterns in 11 children with DS, of which 8 had an associated congenital heart disease.⁵

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LETTERS TO EDITOR

AURAL MYIASIS IN A 1-DAY-OLD NEONATE

Sir,
A full-term neonate girl was delivered by vaginal route in the septic labor room of our hospital. Her birth weight was 1500 g. She was kept in the neonatal intensive care unit. On next day of birth, she developed blood-tinged discharge from her right ear, with incessant cry. On cleaning with a cotton bud, a live 6-mm–long cylindrical white maggot was evacuated along with debris. On turpentine oil instillation, two more white maggots 5- to 6-mm long crawled out of the ear cavity [Figure 1]. Turpentine oil–soaked cotton pledget was placed at the opening of external auditory canal. No further

Figure 1: One-day-old newborn with maggot in the ear
maggots came out. The maggots were sent to the department of zoology and grown into flies of family Calliphoridae and genus Calliphora, and the species identification was done by the presence of the posterior spiracles on the last abdominal segment of third-stage larva. Facility for species identification by DNA methods was not available with them.

Treatment comprised of parenteral ampicillin and cefotaxime; and instillation of Ofloxacine ear drops after removal of maggots. Right ear examination on the seventh day revealed a small healing perforation in the anteroinferior quadrant of the tympanic membrane. The baby was doing well. The mother had presented with septicemia with jaundice. Her WBC count was 26,000/cmm; serum bilirubin, 16 mg/dL; AST, 854 IU/L; ALT, 759 IU/L; ALP, 369 IU/L. Her cervical swab showed pus cells, and culture sensitivity showed heavy growth of Klebsiella sp sensitive to amikacin. Findings of examinations of other systems and laboratory investigations were normal.

Myiasis in the neonatal period is rare and almost exclusively found in tropical areas. It is more common in children less than 5 years of age and with a rural background.[1] Flies (Diptera) of various kinds are mostly responsible for myiasis. The fly that caused infestation in our case was a species of blowfly (order Diptera, suborder Cyclorrhapha, and family Calliphoridae). Flies in the family Calliphoridae are generally referred to as 'blowflies' or 'bluebottles.'

Maggots are classified into three 'instar' stages. An instar I is about 2- to 5-mm long and corresponds to an age of 2 to 3 days (for average houseflies or bluebottles) from the time the eggs are laid. Myiasis can be classified depending on the condition of the involved tissue, into accidental myiasis, semispecific myiasis, and obligatory myiasis.[2] The majority of cases of human myiasis involve fly species that are facultative parasites; humans represent only a target of opportunity, presented through neglected wounds or lack of sanitary measures.[2] When larvae affect undamaged skin, it is obligatory myiasis. In the present case, this appears to be an obligatory parasitism as the neonate was delivered in an institution and kept in a neonatal ICU after birth. Maggots were removed on the next day of birth, so the larva was instar I.

There are very few reports of neonatal myiasis.[4,5] This case is interesting to report as it is probably the first case of neonatal myiasis in a 1-day-old baby delivered in an institution.

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