Spontaneous lobster claw deformity in a silvery marmoset
(Callithrix argentata)

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Summary
The finding of spontaneous lobster claw deformity in a stillborn silvery marmoset is described.

Case report
2 full-term silvery marmosets (Callithrix argentata) were born to young adults housed on exhibition in the Charles Clore pavilion at London Zoo. The litter comprised 1 female which was stillborn and 1 male born alive of equal size. The stillborn female weighed 35 g and showed distinct deformities of the hands and feet. The facial appearance was flattened and there were a number of diffuse dermal contusions, probably reflecting compression damage associated with dystokia. Both hands showed fusion of the digits to form 2 large claws which were strongly flexed, typical of a lobster deformity. The hind limbs showed medial displacement distal from each knee. Both feet had only 3 digits each; an elongated outer digit, a slightly smaller central digit and a small inner digit. All hind limb digits were markedly flexed.

Radiographic examination (Fig. 1) of the skeleton revealed the bilateral absence of the phalangeal bones of the 3rd digit. Both tibias were curved. The tarsal bones of the 3rd digit of the left foot and the 3rd and 4th digit of the right foot were absent. The 5th metatarsus of each foot appeared to have split, giving the appearance of an extra digit.

On post-mortem examination the cranium appeared bulbous and elongated. Both cerebral hemispheres also appeared to be bulbous and flaccid and on section the ventricular spaces were markedly enlarged, causing cerebral distortion. The cerebral crown thickness (ventricle to meninges) was 2 mm. The brain appeared to be oedematous, giving a general appearance of a hydrocephalus. A large meningeal haemorrhage was present lying between the cerebrum and cerebellum, probably as a result of dystokia. All other organs appeared normal.

No previous history of congenital deformities have occurred in the Regent's Park colony or related colonies in Great Britain. Subsequent progeny from these parents and from the livebirth male have all been normal.

Reviews (Elliot, 1979; Morris, 1971) of spontaneous malformations in non-human primates indicate that lobster claw deformity is a rare condition which has only been seen in Old World primates and man. In man the aetiology of lobster claw is not clearly understood, but is presumed to be a new dominant mutation in most cases (Wilson & Gavan, 1967). Evidence to support this in non-human primates is lacking owing to the absence of pedigree data (Morris, 1971).
Lobster claw deformity in marmoset

References


Spontane Hummerscherehand Deformation bei einem Silberäffchen (Callithrix argentata)

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Zusammenfassung:
Bei einem totgeborenen Marmosetten wird eine spontane Hummerscherehand-Deformation beschrieben. (G)