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We hope that making available the relevant information on Pachyonychia Congenita will be a means of furthering research to find effective therapies and a cure for PC.
THE body of a 13-year-old spayed Chihuahua was presented for necropsy examination. The animal had died while sleeping during the previous night.

The most striking lesion found at necropsy was the absence of several digits from the right front foot. The other feet were affected to a lesser degree, but many of the toes lacked nails. On the toes that carried nails, there were severely deformed appendages and hairless patches of thick callus (Figures 1 & 2). The owner stated that the dog had been born with toes missing but had never experienced difficulty in walking.

Radiographically, agenesis was seen in all four feet (Figures 3 & 4) as follows:

Right front: Diminished size of the 3rd metacarpal and phalangeal elements; agenesis of the 1st and 5th metacarpals and phalanges; agenesis of most of the 4th digital elements.

Left front: Agenesis of the distal segments of the 2nd and 5th phalanges; deformed 2nd, 3rd and 4th nails.

Right rear: Agenesis of the 3rd and 4th distal phalanges and nails; deformed 2nd and 5th nails.

Left rear: Agenesis of the 3rd and 4th distal phalanges and nails; deformed 2nd and 5th nails.

The finding of the anomalous nail structures is consistent with a diagnosis of a rare syndrome in man, termed Pachyonychia congenita. This condition, first described in 1907, has also been termed congenital dyskeratosis and pachyonychia ichthyosiformis. In man, the condition is characterized by palmar and plantar hyperkeratosis, dystrophic changes in the nails, anomalies of the hair, leukoplakia, follicular keratoses and corneal dyskeratosis. Verrucous lesions are a frequent finding; generalized ichthyosis of variable degree may not be present. The affection is chiefly with the male sex in many reported cases, pachyonychia has been described in a single individual.

Metacarpal-phalangeal agenesis is uncommon, but not rare, anatomically similar defects can be found in several species. In a search of the literature, such cases could be found in which it was reported that they occurred in a single individual.
The body of a 13-year-old spayed cat was presented for necropsy examination. The animal had died while sleeping during the previous night.

The most striking lesion found at necropsy was the absence of several digits on the right front foot. The other digits were affected to a lesser degree, but were all present, with toes lacking nails. On the toes and paws, there were severely deformed phalanges and hairless patches of skin (Figures 1 & 2). The owner said the dog had been born with toe nails, but had never experienced difficulty walking.

Radiographically, agenesis was seen in the right feet (Figures 3 & 4) as follows:

- Right front: Diminished size of the 3rd metacarpal and phalangeal elements; agenesis of the 1st and 2nd metacarpals and phalanges; agenesis of most of the 4th digital elements.
- Left front: Agenesis of the distal elements of the 2nd and 5th phalanges; deformed 1st, 3rd and 4th nails.
- Right rear: Agenesis of the 3rd and 5th distal phalanges and nails; deformed 2nd and 5th nails.
- Left rear: Agenesis of the 3rd and 5th distal phalanges and nails; deformed 2nd and 5th nails.

The finding of the anomalous condition is consistent with a diagnosis of the syndrome in man, termed Pachyonychia congenita. This condition, first described in 1907, has also been termed hyperkeratosis and pachyonychia. In man, the condition is characterized by palmoplantar hyperkeratosis and dystrophic changes in the nails, skin, hair, conjunctiva, and corneal dyskeratosis. Various types are a frequent finding; generalized ichthyosis of variable degree may or may not be present.* The affection occurs chiefly with the male sex in man. In all reported cases, pachyonychia has been present.**

Metacarpal-phalangeal agenesis is an uncommon, but not rare, anatomic defect in several species. In a search of the literature, no case could be found in which both anomalies, i.e., pachyonychia congenita and metacarpal-phalangeal agenesis, occurred in a single individual.

REFERENCES