OSTEODYSTROPHY IN A CORN SNAKE (*Elaphe guttata*) (CASE 2302.1)

CASE HISTORY
Adult male corn snake (*Elaphe guttata*). Osteitis deformans diagnosed upon radiographic examination. Euthanasia elected.

CLINICAL PATHOLOGY

WCC	PCV	Hp	Lc	Az	Mc
6.3x10^9	33%	23%	56%	21%	%

TP	glucose	creat	CK	AST	Uric acid
78g/L	4.4mM	42uM	454IU/L	5U/L	0.45mM

GROSS PATHOLOGY
External examination: No visible lesions.

Hydration: good
Fat deposits: good
Muscle mass: good

Internal examination: There are numerous bony protuberances emanating from the ventral and lateral aspects of the vertebral bodies. The changes appear to be most severe in the cervical and middle regions of the snake. The spinal column remains quite flexible. The gastrointestinal tract is devoid of ingesta.

HISTOPATHOLOGY
Lesions are not evident within the stomach, small intestine, lung, adrenal gland, spleen, pancreas, skeletal muscle.

Kidney: A focal renal tubule contains laminar basophilic material, containing the negative image of radiating spicules.
Vas Deferens: Large numbers of spermatozoa fill the luminae of spermatic cords.
Liver: Hepatocytes have moderately vacuolated cytoplasm. Scattered hepatocytes contain fine brown cytoplasmic pigment. Heterophils are scattered throughout the sinusoids.
Testis: Spermatogenesis is evident within the spermatic cords.

Spinal column: There is marked irregularity of the vertebral body, particularly within the ventral vertebral body wall. This portion of the vertebra contains multiple fragments of compact bone surrounded by a thick layer of mature connective tissue. Multifocally at the margins of the vertebra there are areas of cartilage formation. No inflammatory infiltrate is evident surrounding the vertebra.
Spine: There is an irregular array of new bone production from the lateral aspect of the ventral portion of the vertebral body.

Fig 1. Spine, transverse section. H&E

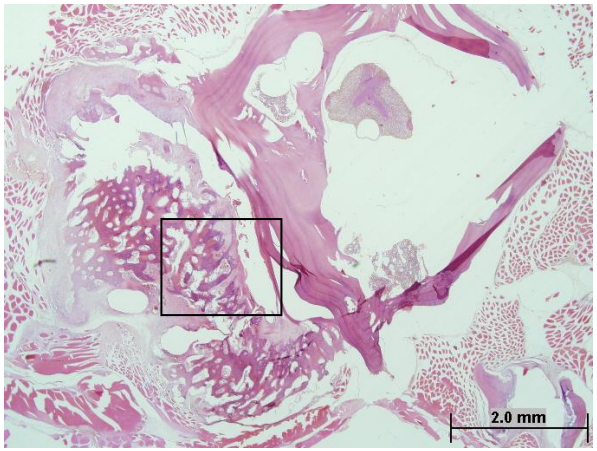

Fig 2. Spine, transverse section. H&E

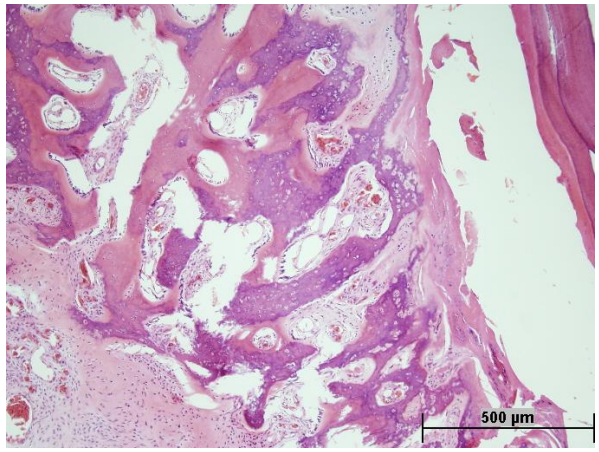

Fig 3. Spine (See inset Fig 2). H&E

BACTERIOLOGY
Spine - No growth on bacterial and fungal culture.

MORPHOLOGICAL DIAGNOSIS
Euthanasia
Extensive dystrophic osteopathy (Pagets-like disease)

COMMENTS
There is no evidence of inflammatory reaction surrounding the bony lesions in the spine. This syndrome has been reported quite commonly in snakes, particularly corn snakes. There has never been any association between this syndrome and nutritional deficiency.

REFERENCES
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Case interpretation: Karrie Rose. Photography and case construction: Damien Higgins

TARONGA CONSERVATION SOCIETY AUSTRALIA
Australian Registry of Wildlife Health