

HEALTH & DISEASES



This column is taken care of by the "Studygroup for Diseases and the Optimum Keeping and Breeding of Terrarium Animals" of the Belgian Society "Terra". If there is a question concerning health or diseases, feel free to contact the president of the Studygroup: Mr. Hugo Claessen, Arthur Sterckstraat 18, B-2600 Berchem, Belgium. He will try to answer your question in this column to the benefit of all members.

EXPERIENCES WITH THREE SPECIMENS OF *CHONDROPYTHON VIRIDIS*.

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INTRODUCTION

Between 17 May and 19 May 1983 three Chondropythons were hatched by J. Schouten (Schouten, 1985). The hatchlings were two females and a male. Schouten also describes symptoms of pneumonia, which he regularly noticed in his three pythons. These symptoms were treated with, among other medicines, chloramphenicol and colistine. Nevertheless the symptoms periodically returned. As a possible cause the author mentions, with references, fall in temperature. Sometimes the symptoms

were mild and disappeared without treatment. I was not informed about these symptoms when the three young pythons were obtained on 13 March 1985.

The three animals were extraordinarily beautiful, though somewhat lean. The male weighed about 300 g, female 1 about 500 g and female 2 about 430 g. They refused to eat well. The females accepted mice, though seemingly unwillingly, with an average of one mouse a week. The male did not accept anything at all. All three animals were extremely restless. As soon as darkness fell, they would crawl around the cage, which they kept doing all night and sometimes even during part of the morning.

On 13 April I got an alarming telephone-call from a colleague: a Chondropython which came from the same source as mine, had died with symptoms that could have been caused by amoebiasis. As I did not want to take any risk with my animals (that were not eating well!), I did not wait to examine faeces but started a treatment with Ronidazole (Ridzol-S). This treatment was stopped on 20 April when a second call came, this time from the owner of the dead Chondropython, a second Chondropython had died, as well as two young specimens of *Malpolon monspessulanus* which had been kept for some time in a cage in which the Chondropythons had also been kept. The autopsy-report indicated that there had been a serious infection with tapeworm and a number of pathogenous bacteria (*Klebsiella*, *Proteus* and *Enterobacter*, and *Streptococci*). Without further delay, after consulting my veterinarian, I started a treatment, consisting:

- a. one injection of Belco-spira 0.25 ml/kg, i.e. 50,000 U colistine/kg;
- b. an oral administration of Belco-spira in the same dosage, for nine days;
- c. one administration of Ascaten (containing

among others niclosamide) against tape- and other worms (100-200 mg/kg).

Treatment ended on 29 April 1985. On 3 May female 1 started to eat with great eagerness, accepting all mice I offered her. Later she accepted young rats, and after some months she even had to be put on a diet to prevent her getting too fat. Female 2 followed this example after some hesitation, and became just as greedy as female 1, so she too, had to be put on a diet.

The male remained a problem. After six weeks he ate a mouse, then waited for eight weeks before taking another, then waited again for eight weeks. He remained thin, but did not lose weight. Furthermore, he remained restless, though not as restless as in the beginning. The females had quieted down after the treatment, only hunting during the evening.

Weight gain was recorded: female 1 weighed 500 g in April 1985, 680 g in October 1985, and 875 g in February 1986. Female 2 weighed 430 g in April 1985, and 875 g in February 1986.

In November 1985 I parted the male from the females. Within a couple of days he started to eat, three mice within a week, thereafter now and then a mouse. At the end of December I put him back with the females, and was amazed to see him start to eat eagerly, from this moment on just as eagerly as the females. In February 1986 he weighed 480 g.

THE TERRARIUM

A couple of weeks after their arrival, the animals were housed together in a terrarium, measuring 100x60x140 cm (lxwxh), all glass except the back-wall. Under the bottom I built in a fan-heater that- connected with a thermostat - blows heated

air through a row of openings near the bottom of the cage. The heater draws the cooled air through another row of openings at the other side of the cage, also near the bottom. A separate fan provides for a constant air circulation through the openings. The air in the cage is consequently in permanent motion, in a semi-closed circuit fresh air can only pass through the opening between the sliding glass-frames.

The temperature in the terrarium is very constant throughout the cage; usually about 30°C. During the night the heating is put to a minimum of 16°C, usually 18-20°C.

The air humidity can be regulated to a lesser extent. I had a lightly heated waterbasin, but that did not help much. In summer, when less heating is needed, humidity is about 60-75%, and in winter 40-60%. I spray the cage with water in the evening, and often in the morning, but the humidity disappears within an hour. There is no artificial light in the terrarium which (located some three metres from the window of the room) is subject to the normal light cycle in Holland.

A STUBBORN LITTLE COUGH

In October 1985 the animals started to be troubled with disquieting symptoms: at intervals they 'coughed' in an almost human manner, with opened mouth, repeatedly, the body cramped with exertion. Once female 1 coughed up some phlegm. She was suffering most. The male I only saw coughing for a short period.

A treatment with oxytetracycline (10%, 100 mg/cc, 6 mg/kg daily IM) did not help. An increase in air humidity seemed to help, the coughing being more frequent when air humidity was low.

Only then did I learn that the animals had had these symptoms with their former owner, and were

treated without success.

At the beginning of February female 2 coughed up some phlegm, which I was able to collect and send for examination to the section of pathology of the department of Exotic Animals of Utrecht University. Bacterioscopically many slim bacteria were found, and as cause of the symptoms *Proteus rettgeri* was mentioned; a troublesome bacterium, sensitive to gentamycine, neomycine, chloramphenicol, trimetoprim and trimetoprim + S.

From this range of antibiotics I chose the chemotherapeutic agent trimetoprim (+S), which has a broad effective range and normally almost no side-effects. Prof. dr. Zwart from Utrecht advised a dosage of 30 mg Tribriassin 80 per kg, which corresponds with 120 mg Tribriassin 20. The latter contains 20 mg trimetoprim and 100 mg sulfadiazine per tablet. One tablet is consequently sufficient for a one kilogram snake. Treatment started on 19 February 1986. Unfortunately, the symptoms had disappeared then, which makes it difficult to decide whether the cure was effective. Due to circumstances, the treatment was short: six days. The dose during the first two days was high.

Some three weeks after the treatment, female 1 coughed again, but not as often as before, and for only a couple of weeks. Thereafter, I have noticed no coughs. Female 2 has not been seen coughing since the treatment. Possibly, another treatment will be necessary in the future. All animals have not shown any sign of illness beside the coughing, and all have been eating well.

The sudden disappearance of the symptoms corresponds with the experiences of the former owner. That brings us back to the possible causes. Unlike Jørgen Schouten, I do not believe a fall in temperature is the cause. In my experience Chondropythons withstand low temperatures very well.

During the late months day temperatures are as low as 25°C, with a nightly fall to about 17°C, and they are not coughing.

I also reject the possibility that the continuous stream of air in the terrarium is the cause. The animals showed the symptoms before I had them, and besides, they had been lying in the terrarium for a long time before they got them.

A more plausible explanation in my opinion is a chronic bacterial infection (*Proteus rettgeri*?). Under favourable conditions, the body is able to resist this infection, but as soon as conditions are less favourable, secondary symptoms get their chance. These conditions could be dry air.

Another possibility can have something to do with the finding of Getreuer, whose Chondropythons seemed to be less sensitive to infections of the bronchial tubes when temperatures were lower (down to 14°C) during the night and more sensitive when temperatures were higher and more constant. It is not clear if this has something to do with the sensitivity of Chondropythons or those of the bacteria involved (optimum temperature?).

POSTSCRIPTUM

In April 1986, a year after I obtained him, the male stopped eating, and has become restless again. It is possible that his refusal to eat during the greater part of 1985 was natural behaviour.

REFERENCES

Schouten, J.R., 1985. Experiences in keeping and breeding of the Green tree python, *Chondropython viridis* (Schlegel, 1872), negative and positive results. Litt. Serp., Vol. 5 (4): 122-156 / Dutch Ed.: 126-161.