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Diseases of Cichlids Part 1

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Most common cichlid diseases | Part I

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ALL PHOTOGRAPHS
BY THE AUTHOR

During my 39 years as a fish pathobiologist working within the industry, I have repeatedly encountered the same diseases among the same species. Many of these are listed in my book, The New Illustrated Guide to Fish Diseases, with 1,000 photographs. However, over the last 10 years I haven't written individual articles that include recent findings on African and American cichlids.

Cichlids - especially discus and Malawi and Tanganyika species - continue to be popular among specialist hobbyists, representing somewhere between 15 to 20% of the aquarium hobby. Some diseases (or disorders) are common in African and American cichlids, while some others are typical of certain species only.



Listless angel fish with darkened coloration typical of a Spironucleus infection.

I will describe the most common and important of these, with photographs and advice for their prevention or treatment. This information can help take preventive measures, to use phytobiotics in fish food, and to avoid the excessive use of antibiotics or drugs to treat the fish. 'One ounce of prevention is better than one pound of cure'.

Note: The small group of Asian cichlids that includes species like those belonging to the genus *Etoplus*, is not discussed in this article.

Part 1 will discuss diseases (and disorders) common among nearly all cichlids: *Spironucleus* parasites and *Mycobacterium* bacterial infections.

Part 2 will deal with diseases (and disorders) that are typical of certain species of cichlids: gill flukes, HLLS or HITH, Malawi bloat and discus or angel fish pest. (Part 2 will be published in the next *OFI Journal*, Issue No. 83 – February, 2017).

Spironucleus parasites

Spironucleus are small (10µ or 0.01mm) flagellates (uni-cellular organisms with a flagellum) which can often be found in small



Slimy excrement – as exhibited by this oscar – is also a sign of Spironucleus infection.

quantities in the intestinal tract of cichlids. These parasites have been recently recognized as *Spironucleus*, and not as *Hexamita*.

Spironucleus can become a serious infection when stress conditions, such as bad handling, poor packing, overcrowding, unbalanced or poor food quality, aggression, etc. are having a negative impact on our fish, as a result of which their immune (defense) system becomes weakened. Other infections (i.e. bacterial infections, or intestinal nematode worm infections) can also trigger this internal, parasitic infection. Adult fish can pass on the parasite on to their babies.

Note: When examining the organs of the fish, we have to be careful not to confuse the parasite with the sperm of male cichlids.



Spironucleus in the intestine of an angel fish.

Clinical signs (symptoms):

These are not always typical: darkened coloration, listless behavior, lack of appetite, etc.

Later on, after days/weeks, the fish show emaciation and slimy excrements hanging out of the anus. Secondary bacterial infections can also occur. At this stage, mortalities are possible. After several weeks/months, certain adult

Tropheus moorii suffering from HLLS (see text for details).





Discus with 'Old Age Syndrome'.

fish like discus or uaru will show holes in the head region and erosion of the lateral line (also called HLLS = Head-and-Lateral-Line-Syndrome, or HITH = Hole-in-the-Head-Syndrome).

Treatment: The sooner you can start with an adequate treatment, the less damage (fewer mortalities) that will occur. Fish that have had HLLS or HITH and survived can still have scars (i.e. holes) after successful treatment.

I recommend preventive measures = good care and avoidance of stress! Use a food with a good mix of fresh (non-cooked) algae (i.e. *Chlorella*), or herbs as prebiotics (prebiotics are non-digestible food ingredients that promote the growth of beneficial microorganisms in the intestines).

During the early stages, a food with extra phytobiotics (plant-derived products which are added to feed in order to improve performance), such as non-cooked and fresh garlic, can help the fish control the infection. In more advance stages, I recommend Metronidazole (500-750mg/100 liters of aquarium water), or commercial products

specifically designed to control *Spirionucleus (Hexamita)* infections. You can also raise the temperature by 3°C during treatment; this increases the speed of the cycle of the parasite and activates the physiology of the fish.



Spleen with tubercles caused by a Mycobacterium infection.

When fish are still eating, i.e. before they lose their appetite, you can try adding 500 to 750mg Metronidazole in 100 gm fish food, but most fish will not like the taste. It's worth noting that young fish do not support Metronidazole treatment well.

In advanced stages you might need to add an anti-bacterial (i.e. Furaltadone or Nitrofurantoin) to control the secondary internal bacterial infections.

Mycobacterium (Fish Tuberculosis)

Mycobacterium is a gram positive bacterium that usually grows in the organs or muscular tissue of fish, and is most likely seen as tubercles. It can show up as an infection or disease after many months or years. The environmental conditions for those bacteria are favorable in our aquaria (and ponds): tropical and steady aquatic habitat, containing water that is usually permanently polluted,

which makes it similar to an incubator. Usually, these bacteria are introduced by other fish or by fish food (e.g. mosquito larvae – even when frozen). Female parent fish can pass on *Mycobacterium* via their eggs so the babies can become carriers of Fish Tuberculosis.

Clinical signs: This infection is mostly common in older cichlids and is therefore also called 'Old Age Syndrome', with the affected fish losing color, becoming emaciated and slowly wasting away, sometimes showing ulcers, etc. Fish that are only several months



Rams exhibiting symptoms of Mycobacterium infection, including pop-eye.

old can also suffer serious infections with signs like: discoloration, swollen belly, pop-eye (exophthalmos), rapid respiration and ulcers.

Treatment: With this disease it is really important to understand that 'One ounce of prevention is better than one pound of cure'. Use mosquito larvae free of *Mycobacterium*, and use brood stock that is free of this bacterium. Many of us have tried several antibiotics, but there is actually no cure for this infection.

I recommend separating infected fish, thus helping the remaining ones by providing them with a clean aquatic environment (this also means clean filters!) and a fish food that contains immunostimulants like beta-glucans (yeast extracts) which stimulate their defense (immune) system. ■

Ulcers are common Mycobacterium symptoms, as exhibited by this Pseudotropheus saulosi.



PART 2 of this article will appear in Issue No. 83 of the *OFI Journal* that will be published in February, 2017. Part 2 will also include several References.