

GRAM POSITIVE BACTERIAL INFECTION OF THE AXOLOTL

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The axolotl colony of Indiana University of Pennsylvania has recently experienced some problems with an infectious condition that causes the deterioration of skin and adjacent tissues. The problem is best seen in the white axolotl which becomes reddened over its back with splotches of blood here and there in its tail fin and almost always at the tip of the tail which rots off. Another site of characteristic damage is the digits which redden and rot off one by one. Without treatment the infected animal eventually dies. We have found 50 mg of tetracycline per liter of water the animal is kept in to be an effective treatment. One treatment is sufficient if the antibiotic is going to help an animal. The disease is highly contagious and does not affect the breeding ability of mildly infected animals.

In an attempt to determine the cause of this condition, the skin of some infected animals was scraped off with a sterile inoculating loop and two gram positive bacteria were isolated. These organisms are briefly described below.

Gram Positive Coccus: This organism is sensitive to tetracycline and is unable to hydrolyze starch. The colonies are cream-colored and grow well at 30 C. It is catalase positive suggesting that it is a Staphylococcus species. Resistant to erythromycin.

Gram Positive Bacillus: This organism is also sensitive to tetracycline. The colonies have a yellow pigment and do not form endospores. Starch and catalase negative. Sensitive to erythromycin.

Either one or both of these organisms is probably the causal agent of this disease.

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