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RESULTS OF A 20 YEAR ERYSIPELAS VACCINATION PROGRAMME IN A DOLPHIN POPULATION

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Erysipelas is found worldwide in different species. Most of the knowledge about erysipelas in dolphins has been extrapolated from studies with swine. The infection in dolphins happens mainly through ingestion of contaminated fish. Two major forms of the disease can be found in dolphins: an acute septicaemic form, with hyperacute death without previous or very little symptoms other than a very high WBC count, and a subacute form, with very typical rhomboid lesions on the skin. If identified in time, which is seldom the case for the acute situation, the disease can be controlled by antibiotics and general support. The other protection mean is immunization through vaccination.

In the past, with the use of a *live-inactivated* vaccine in America, South Africa, and Australia, facilities have experienced anaphylactic (allergic) shock followed by the death of the animal, very shortly after immunization. This result prompted the cessation of vaccination in many facilities. Nowadays animals are vaccinated, when vaccinated, with a swine dead vaccine. The present study concentrates on the immunization of a dolphin population - at different ages, with different backgrounds and with different schedules - with two swine vaccines, the European "Eurovac Ery®" vaccin, used until May 2010 and then the American "Er Bac® Plus" vaccin, and its immunological profile results over a 20-year time span.

The results suggest that animals born in the wild seem to have enough immunization with a vaccination every two years (possibly because of their exposure in the wild to subclinical pathological infection). Young animals born in captivity seem to need a bi-yearly vaccination (their reaction to the vaccine is short lived, maybe due to the overprotection in a controlled environment). In older animals born in captivity, a yearly vaccination seems appropriate. The cut-off, for captive-born animals between bi-yearly and yearly vaccination, where possibly the humoral immunity or other factors come into account, still has yet to be better defined. No case of erysipelas infection was observed in this population during the vaccination period.