High incidence of the congenital umbilical hernia in the Adriatic bottlenose dolphins (*Tursiops truncatus*)

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**Introduction**

Congenital umbilical hernia:
- malformation of ventral abdominal wall of animals and humans
- in terrestrial species such malformation causes death of the individual intrauterinally or soon after birth
- in humans: the congenital umbilical hernia appears in 3.5 out of 10,000 cases of normal births
- in literature: there are no data on the incidence of this malformation in the bottlenose dolphins

Bottlenose dolphin (*Tursiops truncatus*) in the Croatian part of the Adriatic Sea
- the only resident marine mammal species
- number of animals: around 200 adult individuals and around 20 cubs
- estimated number of birth per year in population: between 15 and 20 dolphin

**Materials and method**
- since 1990 - we examined 123 carcasses of the bottlenose dolphin found in the Croatian part of the Adriatic Sea

**Results and discussion**
- congenital umbilical hernia was found in 13 cases:
  - 5 fetuses found in the uteruses of dead mothers or aborted fetuses
  - 8 were born alive and lived for various periods of time
- estimated total number of births of bottlenose dolphins in Croatian part of the Adriatic Sea since 1990 was between 270 and 360
- calculation: congenital umbilical hernia appears in between 361 and 482 out of 10,000 cases of normal births of bottlenose dolphins in the Adriatic

**We do not know**
- cause of such high incidence in the bottlenose dolphins
- whether such high incidence is found only in the Adriatic bottlenose dolphin population, or it is inherent to the bottlenose dolphin species

**Future goals**
- test the hypothesis of the genetic basis of this malformation
- using molecular markers - determining a degree of relatedness among affected animals