GA 668

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GA 668, a 145 cm female *Tursiops truncatus* weighing 45.9 kg was recovered dead, Code 2, from the surf at 45th St., Galveston, about 3:30 pm October 15, 1994.

On external examination, she seemed to be in good condition. The epidermis around the ear openings seemed a little pale. The teeth were not all erupted, and the tongue was heavily papillated. External marks were limited to a few scratches and rakes. There was no evidence of net entanglement. During dissection, it was noticed that the skeletal muscle was pale. This occasioned some discussion before the body cavity was opened, but it was simply noted without a conclusion being drawn.

Opening the chest revealed about 200 ml unclotted blood in the left hemithorax. The left lung was collapsed; that is, it didn't fill the space, and the surface was unusually wrinkled, except for a focus of red firm enlargement (or failure to collapse) with a small ragged tear in the pleura 1-1.5 cm long. In the posterior mediastinum, (the dorsal part of the chest) the space between the aorta and vertebral column was filled with blood, and there was a flabby hematoma (collection of clotted blood) to the right of the aorta. About 300 ml blood was found in the right hemithorax. The right lung had blotchy discolorations, appearing to be bruises or contusions. Both lungs had several dozen 12 mm whitish nodules under the pleura and throughout the lung tissue. These were typical of worm granulomas. The aorta was intact.

At the level of the third thoracic vertebra, the spine was fractured through a

growth plate, but not displaced. On the right at the site of fracture were four broken ribs, fractured at the attachment to the spine. There was some bone splintering at the fracture sites. The immediately adjacent muscle on the right was hemorrhagic and a bit pulpy, but this extended only about 1 cm from the fracture site. The focus of injury was well defined and about 3 inches (7-8 cm) in diameter. The overlying blubber and muscle showed no sign of injury, despite specific search. From a lateral view the point of impact would have been just above the scapula. The tear of the left lung was apparently due to a fractured rib on the left.

The meningeal space around the cord at the spinal fracture site was full of blood, and the cord seemed to have been transected. There was a point of apparent hemorrhage in the cord, related to the central artery. The heart was entirely normal. Thyroid was its usual lumpy texture. The thymus was massive. It overlay the base of the heart, almost covered the thyroid, and wrapped around the brachiocephalic vessels.

The abdomen was completely normal. The first chamber of the stomach contained a lump of dense cottage cheese, which we presumed to be milk.

It is easy enough to attribute a cause of death. Trauma caused fracture of the spine and spinal cord injury, with hemorrhage into the pleural spaces. Puncture and hemorrhage of the left lung was caused by a fractured rib. Otherwise, this was a healthy animal.

It is not so easy to determine what caused the trauma. This animal was killed by a severe blow to the side of the body. This seems clear enough. Evidence for the nature of the blow is mainly deductive. We considered collision with a boat, but it seems unlikely that this would produce such a discrete focal injury in this location, and do it without abrading the epidermis. We also considered a hammer

blow, but again this seems unlikely, because of the location. I think it would have been very difficult to hit the animal in this location with great force from a boat. There were no net marks or other signs of entanglement to suggest it was brought onto a boat. Finally, we considered intraspecific aggression. I can readily visualize this young animal having been rammed or butted by an adult. The blow is lateral, and in a good location to be struck from the side. The site has the rough dimensions of an adult beak, and since the beak is covered with skin, it would not have marked the epidermis. Only one blow would have been needed to produce all the fracture and bleeding found. If this animal had been an adult, after closure of the cartilage growth plate in the vertebral body, the spine might not have broken.