Up on a Soap Box: (special edition)

Problems with Pica

Pica (Pica (/ˈpaɪkə/ py-ka)) is characterized by an appetite for substances largely non-nutritive, such as ice, clay, chalk, dirt, or sand (Wikipedia), is common in phocids, ice seals (Harp seals, Hooded seal) in particular. Up to 3% of all stranded animals on Cape Cod had fatal gastric rupture, peritonitis or severe impaction/dehydration caused by the ingestions of rocks and sand (Bogomolni et al, 2010), but when you exclude cetaceans and look at juvenile Harp seals that percentage goes up to 90% so it is something we should be prepared to diagnose and address from a medical standpoint. I even included it as a disease in my Handbook (attached) in the chapter on Harp seals. Borgomolni (2010) and others have suggested that the behavior can be a stress response. I have experienced this first hand, that even the presence of humans with a seal on the beach can induce sand eating. I believe that the behavior has survival implications, if these seals are often hauled out on ice flows, eating snow and ice may be a source of fresh water and self-treat dehydration, so the behavior may help some wild animals. However, the beaches of the US are more likely to contain sand and rocks, then snow and ice, the ingestion of these is a serious and potentially fatal problem. It just illustrates the old adage, “stick and stone will break my bones, but sand and stones can kill me”, particularly if ingested. Ingestions can lead to pain, stress, gastro-intestinal rupture with subsequent peritonitis and fatal septic shock, and could be considered a surgical emergency.
If the sand does them no good, and creates significant problems, what are we to do? First and foremost is identification of ingestion vs impaction vs obstruction. Ingestion is the presence of sand and rocks and can be irritating, impaction implies some form of physiological disturbance, such as constipation, vomiting, colic, etc. Finally obstructions will need to be resolved quickly by medical therapy or surgery (or euthanasia) is indicated. This can often be accomplished with a history, physical exam, and radiographs. Ancillary diagnostics include barium studies and CT. Medical management consists of fluid therapy, increased dietary fiber, frequent monitoring, and consideration of lubricants. Use of pro-kinetics (erythomycin, metacolpromide, and cisapride) are largely contraindicated, and more likely to promote obstruction and lead to GI perforation then to resolution of the impaction. Pain control is used as necessary remembering that most opioids can be constipating. Use of dietary additives to facilitate passage of sand, such as lactulose and mineral oil are commonly employed. At Penn we (“penn we”) abstained from the use of mineral oil, even in horses, and I prefer the use of lactuose. Pysllium has been shown to increase the removal of sand from the intestinal tract of healthy horses (Landes et al, 2008) and is often employed prophylactially and therapeutically in cases of sand colic. If significant sand is in the colon, a warm water (100°F) enema can be tried as well. A low concentration of DSS could be added to this fluid. So the sandman has commeth, lets hope he takes no thingth away.

-Dr. Sea Rogers Williams (Attending Veterinarian and Director of Science)