IAABC Sample Case Study: “Zeus” - Dog to Human Aggression

Case Information
Subject: Zeus
Age: 1.5 years old
Breed: Great Dane/Labrador Retriever Mix, approximately 90 pounds.
Sex: Male, neutered

History
Presenting complaint: Human-directed aggression
Acquired from and age at time: Rescue organization at 1 year old
Medical history: Otitis at 1 year and three months of age
Medications: Otomax at 1 year and three months of age
Household: Boyfriend (Apollo) and girlfriend (Athena).
No children.
Diet: Purina One dry dog food - scheduled feedings twice per day

Behavioral Complaints
Human-directed aggression. Apollo and Athena reported multiple bite incidents of Levels 2 and 3 per Dr. Ian Dunbar’s Bite Scale (Dunbar). One incident required eight stitches to an adult woman’s cheekbone.
On-leash reactivity towards children.
Pulling on leash.

Behavioral History
Zeus was acquired from a rescue organization at 1 year old. The rescue pulled Zeus from a shelter when he was approximately 8 months old. No prior history was known before the age of 8 months.

The young couple had recently moved into a new apartment and wanted a large dog that would eventually provide a companion for children they were planning to have. They both enjoyed spending time with Zeus and included him in many of their daily activities. Zeus was their first dog as a couple.

Apollo and Athena enjoyed taking Zeus for outings to the park and felt he responded well to their requests when cued to sit, stay, and down. They mentioned he still pulled, even with a prong collar on. They also noted that Zeus had become more reactive towards children during their walks over time.

Approximately one month after his adoption, they were sitting at a park bench with Zeus when several children of ages ranging from approximately 8 to 12 years old approached with their mother. The clients reported that after the children surrounded him for petting, Zeus nipped one child in the shirt and then another child in the hand. Both were petting
and/or pulling his ears. No physical injury occurred to either child. Apollo and Athena apologized to the mother and quickly removed Zeus from the park.

Zeus had met other children at the park and also Athena’s 6-year-old niece in their home prior to this without incident. He did not have any history of aggressive behavior towards either Apollo or Athena. He also had interactions with several of their friends, both at home and in other environments, as well as other animals without any report of aggressive behavior.

A couple of days after the episode with the children, Apollo’s mother was at their apartment visiting. The mother had met Zeus several times prior to this without any reportable aggressive behavior.

While the mother was sitting on the couch, Zeus approached and she started petting and rubbing his ears with both hands. She then proceeded to blow a puff of air into Zeus’ nose. He responded with a bite to her face leaving puncture wounds to her cheekbone and bottom of her jaw. It was a single bite and release that required eight stitches to her cheekbone area. The bottom of her jaw area was bruised, but no punctures were inflicted.

As required by CT state law, the emergency physician caring for Apollo’s mother reported the incident to local authorities (CGS § 22-358). The Animal Control Officer placed Zeus in a 14-day quarantine that could be completed at the client’s home (CGS § 22-358 (c)). This entailed the clients not allowing Zeus to come in contact with any human or other animal during the 14-day period.

Our first consultation was three days after completion of the quarantine period. Apollo’s mother declined involvement in the consultation as she would be leaving for her summer home.

**Observations**

As per my instruction, Zeus would have a six-foot leash on his flat collar dragging behind him as a safety precaution for our first consult. Based on the historical information I obtained prior to our first consultation, I felt this was the only management and safety measure that needed to be in place prior to my arrival.

When I arrived at the clients’ home, Zeus barked a few times when I knocked at the door. After the clients invited me inside, Zeus greeted me with loose and friendly body language. I allowed him to sniff me, but I did not initially try to make any physical contact with him.

I sat down at the kitchen table with Apollo and Athena to gather more information about Zeus’ history and what their goals were. Zeus approached me several times with
receptive and social body language. I gave him a treat for each time he approached. After several repetitions of this, he voluntarily rested his head in my lap as I sat at the table. He also responded with enthusiasm and focus when worked through his known cues which I followed with food for reinforcement.

Apollo and Athena were distraught and uncertain of what caused Zeus to act aggressively. They wanted desperately to keep him as their companion, but did not want to risk further liability or injury if they could not find a cause and resolution to his aggression. Athena expressed her concerns with having children at some point. I explained that we would need to assess Zeus further and measure his progress over time before a conclusive decision could be made. Apollo wanted to do everything necessary to keep Zeus in their home. Both Apollo and Athena agreed they would exhaust all options before considering giving up Zeus.

Based on the history given by the client, I wanted to assess his level of tolerance for handling. I tethered Zeus to a support beam in the living area by a leash attached to his flat collar. I stood in the range just short of full extension of the leash for safety purposes.

The assessment began with a simple stroke under the chin. Zeus accepted this and continued to display loose and sociable body language. I moved to stroking his chest and he remained affable. I stroked along the top of his head and down towards his tail and he was still displaying body language that indicated comfort and no stress. Next, I slowly rubbed behind his ear while lifting up gently. I immediately noticed some redness and inflammation at the opening of his ear canal. As I was performing this part of the assessment, he also flicked his tongue and presented with a “half-moon eye,” indicating stress or discomfort, so I stopped any further contact at that point.

We then went for a short walk near their home. There was a fenced-in playground nearby with children playing. Zeus pulled against the flat collar while Apollo was holding the leash during the entire walk. As we approached the playground, Zeus began to pull harder towards the children and was barking. Apollo responded by pulling and yanking on the leash and flat collar while yelling “no.” I had Apollo turn around and increase distance from the playground by about 25 yards. At this point, Zeus displayed loose body language and whined while looking towards the playground.

**Assessment**
Zeus had noticeable discomfort/pain in his ear, with physical contact in that area being the common antecedent for his aggressive responses towards both the children and Apollo’s mother. The incident with the mother was “trigger-stacked” as Zeus was most likely in discomfort or pain while having his ears rubbed and with the bite being triggered by having the startling stimulus of air being blown into his nose.
His increasing level of reactivity towards children was most likely being exacerbated by frustration with the owner’s jerking on the leash and prong collar when children were in the environment on walks.

Zeus’ social history around children was short, but indicated a potentially desirable prognosis as he had successful interactions with several children of both genders and various age groups. His body language during the assessment around children at the playground was not indicative of fear, but possibly a presentation of frustration. Further assessment would be needed and completed in subsequent consults.

Negative indications:
• The level of bite to the mother was severe and the clients would need to practice impeccable management and compliance of the behavior plan around children. His size also needed to be considered in terms of the level of damage he could inflict.
• A history of quarantine would need to be considered for liability, legal, and ethical ramifications (Phillips, 2005).
• There was an unfavorable interaction with children, which may have established a negative association.
• There was a history of punitive-based training, which was continued in environments with children.
• Zeus had an unknown behavioral and social history before being taken out of shelter system

Positive indications:
• There was a short history of aggressive behavior with only two known incidents of aggressive responses.
• The trigger(s) for the aggressive responses were identifiable and narrow in scope.
• Both clients were in agreement about compliance and could dedicate the time and resources necessary for the program.
• Zeus was responsive to a reward-based training program and the elements of a systematic desensitization and counter-conditioning protocol (SD/CC).
• Zeus displayed sociable behavior around children and adults in most other contexts.

**Intervention Recommendations - Consult #1**

Safety and management:
• Zeus was not to be allowed near children, whether during his walks or in the home, until we could actively begin a systematic desensitization and counter-conditioning protocol and until his ear issues were declared resolved by his veterinarian.
• Zeus was to be conditioned to wear a Baskerville Ultra Muzzle so that it could be used as an added safety measure during behavior modification protocols around children.
• Adult visitors were to be instructed not to pet or touch Zeus until we could begin active behavior modification handling protocols and until his ear issues were cleared by his veterinarian. Interactions could include handing Zeus treats or asking for known cues by using treats.
Behavior change interventions:
- We discussed Apollo and Athena’s goals for Zeus and determined that a resolution to the aggressive responses would be their main objective. They felt his reactivity towards children on leash presented as aggressive behavior, and wanted to resolve that issue as well. I explained how pulling on leash could be resolved and how it was an integral component of Zeus’ reactivity. I also felt it was imperative to explain to them in a non-judgmental and compassionate manner why the prong collar and leash jerking may have been exacerbating the reactive behavior. They were relieved that there would be other methods to teach Zeus how to walk nicely on leash and were open to trying other avenues.
- I provided Apollo and Athena with a link to Dr. Sophia Yin’s “Dog Aggressive for Toenail Trim” YouTube video (Yin, 2009) and also her “Jack Russell (JRT) Aggression When Blowing in Face” YouTube video (Yin, 2009). I explained how the concepts in the videos, as well as the body language of the dog, would apply to the handling exercises we would implement with Zeus. For handling exercises with Zeus, we would reverse the order of food presentation and stimulus as demonstrated in the toenail trim video. Instead, we would present the stimulus and then follow with food. Apollo and Athena were given specific instructions not to try anything they had seen in the videos until we could begin the SD/CC protocol.

Ancillary support:
- I suggested to the clients that they bring Zeus to their veterinarian to have his ear examined and treated if necessary. I explained how they would need to disclose to the veterinarian his bite history and that they would most likely muzzle him. The Baskerville Ultra Muzzle was not to be used at the vet to avoid negative associations with wearing that particular model.
- I suggested that they discuss Zeus’ diet with the veterinarian and the effect it may have on his ear health. I had previous interactions with their vet and knew of his progressive knowledge about canine nutrition. I provided them with resources so they could research further on their own as well.

Consult #2
The second consult occurred one week after the initial meeting.

- Zeus was prescribed Otomax for otitis externa and given an ear cleansing solution. Apollo and Athena were to follow up with their veterinarian two weeks after their initial appointment with him. Apollo was able to apply the Otomax and clean Zeus’ ear without incident.
- The clients researched dry dog food brands and switched from Purina One to Taste of the Wild Salmon.
- Zeus was continuing to voluntarily place his snout into the Baskerville Ultra Muzzle and the clients were able to feed him treats through the front.
• Several of Apollo’s male friends had been by to visit over the week without incident. They were given instructions not to physically touch Zeus, and all complied well. Zeus responded well to their short training sessions and seemed relaxed to Apollo and Athena.
• Zeus had not been on any walks during the week, but was given exercise by playing fetch in the backyard.

Loose leash walking protocol:
A Wiggles, Wags, and Whiskers brand Freedom Harness was fitted to Zeus by Athena while I fed treats with a high rate of reinforcement due to his handling issues. I explained how the harness would provide for greater control when necessary and would help to avoid any negative pain or discomfort associations from the prong collar when Zeus pulls towards children in the environment. A six-foot leather leash was attached to the front clip of the harness.

Demonstration of proper loose leash walking mechanics was done in the backyard where there was minimal distraction.

Secondary assessment:
A second assessment was necessary to determine what social behaviors Zeus displayed in environments with children. We remained at just threshold distance so I could assess his signals. Zeus offered some affiliative gestures including play bows, relaxed open mouth, and some higher pitched barking (O’Heare 2007). These observations indicated Zeus was looking to decrease distance from the children. I explained to Apollo and Athena how the prevention of forward movement through use of the prong collar could have escalated his reactivity, which was a function of frustration.

I explained the concepts of “Say Hi For Calm Greetings” (Arthur, 2009) which is an operant approach where the dog sits for greetings and touches the stranger’s hand when cued. It would allow for Zeus to touch a stranger’s hand and look back to Athena or Apollo for a reward when verbally marked.

Apollo and Athena were to work on loose leash walking concepts, and the “touch” cue. Muzzle acclimation and safety protocols put in place during the first consult would also be continued until the next session.

Consult #3
This consult occurred two weeks after the second.

• Zeus’ ear infection had been cleared by the veterinarian.
• Apollo and Athena demonstrated Zeus’ loose leash walking and were proud of his progress. Zeus exhibited excellent focus on both of his handlers.
• Zeus was able to wear the Baskerville Ultra Muzzle with no difficulty. Some adjustments were made to the fit.
• Hand targeting was coming along nicely with some minor changes necessary in Apollo’s timing.
• No aggressive behaviors were reported.

Body handling protocol:
We started the session working on body handling exercises (Donaldson, 2002). I explained the importance of staying under threshold and recognizing when a CER (conditioned emotional response) had been installed. Zeus had his muzzle on. An explanation of what stress signals look like and why they were considered above threshold was also part of the discussion (Aloff, 2007).

We practiced with placing a hand on Zeus’ chest (as a neutral area with no negative history), waiting for a very brief moment, and then giving him food with the opposite hand. The protocol was worked through for about 10 minutes and instructions were given to the clients to continue incorporating this exercise twice per day for about 10 minutes each time. They were to gradually work towards including his ears only after several days of success on more neutral areas of his body.

Loose leash walking and leash reactivity protocol continued:
The Premack Principle was explained to the clients and how it related to Zeus being able to get closer to children. Zeus would need to offer a social or desirable behavior before being allowed to decrease distance. These behaviors included sit, down, play bow, or standing in a relaxed manner. Pulling, barking, or tense posture would cease forward movement.

Once Zeus was close enough to greet a person, the “Say Hi for Calm Greetings” protocol would be employed.

We ended the session on a good note and returned home. The clients were given instruction to continue working on these concepts, and were reminded that Zeus must always have his muzzle on around children or adults who are handling him. We discussed having Athena’s niece and nephew included in the next session to practice further positive interactions.

Consult #4
This consult occurred one week after the third session.

• Clients reported excellent progress in Zeus’ body handling exercises and have incorporated their friends and some family members. They remarked that they felt guilty about his past ear infection, saying that, they could see in hindsight that the bites were preventable. I responded by praising them for a remarkable job in changing how Zeus felt about humans handling or touching him.
• Zeus was able to walk towards the playground without pulling and had learned to sit as a default behavior when Apollo or Athena stopped forward movement.
• He had only met one older child through the fence during the week. The clients attributed it to Zeus having a muzzle on. I explained that for the time being, it would be essential in preventing any bites and also help keep exuberant children with diligent parents at a distance. This would be imperative to a successful transition off-muzzle in the future.

• No aggressive behaviors aware reported.

Body handling protocol continued:
Athena’s six-year-old niece and eight-year-old nephew were included in the consultation. I demonstrated, using a stuffed dog, how and where to pet a dog, and what a proper greeting should look like. We also discussed the importance of not touching Zeus’ food or toys, and leaving him alone if he is laying down or sleeping. Each child took turns playing out the interactions with Zeus while he had his muzzle on.

We all then went to the playground and Zeus was able to walk nicely on a loose leash as we approached. The children had a few playmates in the park and we got permission from their parents to practice greetings with Zeus. I reviewed the concepts of “Say Hi For Calm Greetings” with Apollo and Athena and the children were given instruction on how to greet Zeus. The interactions went well with Zeus given the cue to hand target with the children and return to his handler for reinforcement when marked. Zeus displayed affiliative signals throughout the interactions.

We returned home and I praised everyone for their excellent work. I also discussed how to keep interactions brief and walk away if children approached Zeus suddenly and displayed any stress signals.

Apollo and Athena were to continue working on the handling and greeting protocols and begin to generalize them to different environments (O’Heare, 2010). The muzzle would need to be used for at least one year before consideration for discontinuing its use.

Follow-up Phone Consult
This phone call was six weeks after in-home consult #4.

• The clients reported Zeus’ ears remain healthy.
• Apollo and Athena are pleased with how well Zeus walks on a leash and mentioned they purchased “his and hers” treat pouches.
• All visitors to the home are able to interact with Zeus without incident. The clients still monitor and supervise all interactions.
• Interactions with children were excellent and they remarked how Zeus seems to enjoy their attention.
• The clients inquired about removing the muzzle for indoor interactions. I remind them that Zeus has a history of quarantine, and the animal control officer would have authority to make decisions on Zeus’ future should another incident resulting in complaint or injury occur. They agreed to continue exercising caution and would
follow up with me in one year, or when they decided to have children to schedule a relevant consultation.

References Cited