Millie’s Journey with Alternative Treatment for Hemangiosarcoma

By Mary O’Malley

Let me first caveat this article by saying this is a case study with a sample size of one. It may or may not be relevant to anyone else facing hemangiosarcoma, but as there were no side effects to the treatment and Millie has outlived her prognosis with a good quality of life, at the very least this is worth discussing with your veterinarian.

Hemangiosarcoma is typically a very aggressive cancer with a poor prognosis (Kitchell, 2008) (Phillips, n.d.) (Wendelburg, et al., 2015). The average time from discovery of the cancer to death is only 6-8 weeks (Wendelburg, et al., 2015). It metastasizes quickly and since it is a cancer of the blood vessels, it can go anywhere in the body. The most typical presentation is called visceral: a tumor on the spleen (most common location), or one on the heart (second most common location), or any other internal organ. It is often not caught until the tumor starts to bleed and is therefore known as a silent killer, as there are few symptoms before a massive hemorrhage. There are two other types of hemangiosarcoma: cutaneous or dermal, which is literally in the skin and may be cured surgically, and subcutaneous or hypodermal, which is below the skin but not in the internal organs. The latter is the most unusual presentation of the disease, and it’s the one Millie has.

Millie is 7 and intact, although I don’t think that makes any difference. Her cancer initially presented as a large lump on her neck/shoulder. Both my vet and the surgeon we consulted expected it to be a mast cell tumor, which has a good chance of being cured surgically if the surgeon gets clear margins and it hasn’t metastasized (Clinical Oncology Service, Ryan Veterinary Hospital of the University of Pennsylvania, n.d.).

She had her surgery at the end of June, 2018. Her tumor had grown into her muscle and was large. To everyone’s surprise, the pathology report showed hemangiosarcoma. The surgeon did get clean margins. The concern was that it might already have metastasized, although a quick ultrasound of her spleen (the most likely site for a tumor) showed no gross tumors.

We consulted with an oncologist who recommended chemotherapy, but also two Chinese herbs: I’-Yunity (a mushroom derivative) and Yunnan Baiyao, which a friend had also suggested I look into. The former has been (Brown & Reetz, 2012) and is (University of Pennsylvania, n.d.) currently being studied at the University of Pennsylvania as a treatment for hemangiosarcoma after a splenectomy and in conjunction with chemotherapy (Millie did not qualify for this study as she still had her spleen). Yunnan Baiyao has been used for decades to control bleeding (Wirth, Kow, Salute, Bacon, & Milner, 2016). The exact mechanism is still a mystery, as are the exact ingredients, but it has been used in both humans and animals. The oncologist said to start her on the I’-Yunity immediately and then start the Yunnan Baiyao if she developed another tumor. He gave her 6-9 months with chemo and the herbs; maybe 3 months without the chemo. From his report (my emphasis added):

Millie has been diagnosed with subcutaneous hemangiosarcoma based on the biopsy results from surgery. This is an aggressive tumor that develops from blood vessels and stem cells. Large and invasive hemangiosarcomas typically have a behavior similar to that of splenic hemangiosarcoma. Unfortunately, this means Millie’s hemangiosarcoma is expected to spread within her abdomen, lungs or other more uncommon sites (heart, brain, and others). These sites of spread can bleed and cause sudden weakness or collapse. Additionally, they can cause poor appetite, low energy, and breathing changes.

The tumor itself may regrow and this can cause pain, swelling, bleeding or become an open wound. This risk is lower because of the complete margins accomplished by her surgeon, but not zero. Because of spread or problems with her local tumor, Millie would be expected to live about 3 months without chemotherapy. The addition of chemotherapy on average extends a dog’s life by an additional 3-6 months. Some dogs like Millie with subcutaneous hemangiosarcoma will have longer and better responses than expected. Millie has been diagnosed with subcutaneous hemangiosarcoma based on the biopsy results from surgery. This is an aggressive tumor that develops from blood vessels and stem cells. Large and invasive hemangiosarcomas typically have a behavior similar to that of splenic hemangiosarcoma. Unfortunately, this
Bleeding Disorders in Irish Wolfhounds, a Survey

In early 2019 the Irish Wolfhound Foundation was contacted by Daniel J. Fletcher, PhD, DVM, DACVECC of Cornell University, a specialist in critical care. He had become aware of concerns among Irish Wolfhound owners about post-operative bleeding problems, some of them fatal. The discussion centered around the use of anti-fibrinolytic drugs as a preventative for bleeding. While these drugs are quite safe he had questions about how common this was and whether the bleeding was indeed due to hyperfibrinolysis. He has developed an assay to test for hyperfibrinolysis using thromboelastography (TEG). The TEG assays have to be run on whole blood within 30 minutes of collection, but the device is small and transportable.

Dr. Fletcher was wondering if the Irish Wolfhound Foundation would be interested in sponsoring a study to evaluate the causes of bleeding in our breed to determine if we are indeed treating the correct problem. It has been previously documented that some Irish Wolfhounds have vonWillderbrands, disease, a different clotting disorder.

We agreed that the first step was to do a survey and get a better idea of the prevalence of the problem and then to decide how we might go about doing some testing.

A survey was designed by Dr. Fletcher with IWF input and distributed via email lists and Facebook. Here are the preliminary results.

1. We had a total of 100 responses.
2. 47 reported having an Irish Wolfhound that experienced unexplained bleeding and 53 reported not seeing unexplained bleeding.
3. The 47 people reporting unexplained bleeding in Irish Wolfhounds reported a total of 51 affected dogs.
4. Of the 51 dogs with unexplained bleeding, 29 were within 1 week of surgery.
5. Of the 51 dogs with unexplained bleeding, 23 died.
6. Of the 29 surgical bleeds, 19 were spay/neuter surgeries.
7. Of the 19 spay/neuter surgeries, 17 bled into the abdomen, the rest had bruising or oozing from the incision.

It is to be expected that there are some biases to this data. People who had not experienced the problem were less likely to participate in the survey. The mortality rate seemed extremely high but that also could be explained in that dogs that had minor symptoms and did not die may not have been noted as having “abnormal” bleeding.

Still it is obvious from this data that the problem is not insignificant.

Dr. Fletcher is currently in the process of writing up a proposal to define a testing program. He expects to be at the Irish Wolfhound Association of New England show as he is a wolfhound owner himself.
Update from LCS11 Data 2019

The LCS11 study started recruitment after the Lifetime Cardiac Study closed in 2015.

The LCS11 tracks morbidity and mortality in the IW and provides an ongoing database and DNA collection for future research to benefit IWs.

An easy to answer yearly questionnaire is needed for each entered hound and a single blood sample for DNA is collected at entry into the study.

Follow-up is the bane of any longitudinal study. There are too many blanks in the database! Hopefully the ability to provide information electronically will improve response.

Health of Our Hounds

573 owners have thus far filled out the initial entry forms for the LCS11. Tracking health concerns for the IW is an important function of the LCS11.

The following data is from at least one follow up provided by 306 owners for 355 health concerns (a hound could report more than one health concern).

The IW seems to be a robust dog with 223 of these hounds reporting NO HEALTH CONCERNS.

<table>
<thead>
<tr>
<th>Problems Reported</th>
<th>Cardiac disease</th>
<th>Pneumonia</th>
<th>Allergies</th>
<th>Diarrhea</th>
<th>Bloat</th>
<th>OCD</th>
<th>Difficulty urination</th>
<th>Seizure</th>
<th>Rear weakness</th>
<th>Lymphoma</th>
<th>Megaesophagus</th>
<th>Kidney failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Hounds</td>
<td>35</td>
<td>17</td>
<td>12</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

This data continue to reflect the chronic health problems noted in previous surveys. The numbers are so small that no trends are possible except perhaps the surprising number of hounds with allergies. A follow up on health concerns will be presented yearly—hopefully with growing numbers to improve the accuracy.

Cause of Death

108 owners have reported loss of their hounds. 39 provided no cause of death leaving 69 with reported cause of death.

Cancer continues to kill most of our hounds with 32 of 69 reported deaths from cancer. Osteosarcoma claimed 23 of these 69 hounds. The average age at death from osteosarcoma in this population was 5.98 years. Lymphoma was reported in 3 dogs with age at death 7.1 years. Hemangiosarcoma reported in 1 dog (8.08 yr). Cancer-other was cause of death in 12 hounds (age 7.4 years at death).

9 hounds had cardiac death reported. The average age of death in these hounds was 7.98 years—a striking 2 year longer life span than hounds with osteosarcoma.

7 hounds died from rear weakness with average age of death LifeCycle 11 Follow-up Needed

Irish Wolfhound DNA stored at the University of Pennsylvania and elsewhere is not useful to researchers without information from the donating hound.

It is a waste of resources for the poor hound who donates his blood, for his dedicated owner who holds him for the needle stick, for the people gathering the data and for researchers investigating genetic health concerns if he becomes another “lost to follow up”.

To aid future advances in the well being of our hounds an accurate record of health problems documented in a database is invaluable.

Consistent follow up is the bane of any longitudinal data collection.

Everyone has too much to do.

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There are too many hounds in the LCS11 needing follow up. With the help of Mary O’Malley this information can now be provided electronically.

Owner Friendly Data Collection

The need for a simpler questionnaire for the LifeCycle11 Study was evident and thus a listing of the most commonly reported problems was adopted. To improve participation data can now be provided electronically.

Owners will be prompted by email and directed to a link to data collection.
Millie (Continued from cover) means Millie’s hemangiosarcoma is expected to spread within her abdomen, lungs or other more uncommon sites (heart, brain, and others). These sites of spread can bleed and cause sudden weakness or collapse. Additionally, they can cause poor appetite, low energy, and breathing changes. The tumor itself may regrow and this can cause pain, swelling, bleeding or become an open wound. This risk is lower because of the complete margins accomplished by her surgery, but not zero. Because of spread or problems with her local tumor, Millie would be expected to live about 3 months without chemotherapy. The addition of chemotherapy on average extends a dog’s life by an additional 3-6 months. Some dogs like Millie with subcutaneous hemangiosarcoma will have longer and better responses than expected. Given Millie’s surgical site opening (dehiscence), chemotherapy should not be started.

Because she had a sibling who also had hemangiosarcoma and developed heart problems due to the chemo, we opted not to go that route. It also would have meant close to half the time she had left would have been spent in treatment, with who knows what side effects. The cost/benefit analysis just didn’t make sense in this case. While hemangiosarcoma can respond to chemo, it appears to increase short-term survival but not long-term survival (Wendelburg, et al., 2015) (Vucenik & Shamsuddin, 2003).

The recommended dosage was 10-14 capsules of I’m-Yunity daily, split into two doses (she weighs about 125). We chose to go with the lower dose simply because it was easier to manage quantities that way. The I’m-Yunity website recommended the higher dosage, but since the oncologist gave us a range we felt safe staying within that range. (Note: there are other supplements which contain Turkey Tail mushroom, which is what I’m-Yunity is derived from. We have chosen to stick with the “name brand” but many people on the Facebook group report similar results with other products, such as Host Defense Turkey Tail, which are significantly lower in cost.)

After 4 months at this dose Millie was still acting normal. Eating, playing, running in the field with wild abandon. An echocardiogram in October showed her heart to be free of gross tumors. Thinking that this was about how long she would have been undergoing chemo, we decided to drop her down to a maintenance dose of 2 I’m-Yunity daily, which she is still taking. Note that this “maintenance dose” was not recommended by anyone; we were taking a stab in the dark, in essence. We were reluctant to take her off the I’m-Yunity entirely since she seemed to be doing so well, but if it’s killing cancer cells we thought it should have done the bulk of its work already.

After 8 months, still acting normal, Millie developed a lump on her hock. We assumed it was the cancer and started her on Yunnan Bia-yao. I also joined a canine hemangiosarcoma group on Facebook which recommended additional supplements. After some research we added a supplement called IP 6 plus inositol, which has also been shown to kill cancer cells in vitro (Vucenik & Shamsuddin, 2003).

At 10 months the lump/tumor seemed to be growing and she was slowing down in her activity level, so we added yet another cancer-killing supplement, graviola (Qazi, et al., 2018). We shall see what effect that has, if any. After 3 weeks all I can say is that the tumor hasn’t gotten any larger since we started the graviola.

Millie is still a happy dog, although she is starting to show some rear end issues, which may or may not be related to the cancer. She has outlived her prognosis and has suffered no side effects from the supplements we are giving her. The odds are still against her winning against hemangiosarcoma in the long run, but for now, she is enjoying life and we are very grateful for every day we have with her.

I hesitate to say that the supplements have prolonged her life, but then I can’t say they haven’t. I am impressed enough with her longevity and quality of life to want to share her story, and my research, in case anyone is facing a similar situation and wants to investigate using one or all of these supplements.

References

Testing (Continued from page 2)

IWCA National Specialty. Thanks to everyone who brought their hounds. Thanks especially to Carole Silverthorne, who is trying to figure out what I do with paperwork. She learns faster than I teach. Thanks also to Jimmy Glynn, who helped control traffic at the door.

We tested only 54 dogs, down from 71 at last year’s Specialty but found very few abnormal results. Shown in Table 1 are the statistics for 2019 with 2018 for comparison. Only one dog this year had atrial fibrillation and that one did not show signs of IW type dilated cardiomyopathy. Two dogs, on the other hand, had tricuspid valve disease that was severe enough to be considered abnormal. While mild valve disease is a common finding, most of it what we have seen is incidental and does not result in abnormal findings.

Thanks to the show committee, we had excellent facilities near the ring and a pleasant space for waiting in the hospitality suite.

2019 IWCA Heart Testing, Santa Fe, NM

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Normal Echo</th>
<th>Normal EKG</th>
<th>Normal EKG and Echo Abnormalities</th>
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<tr>
<td>&lt;2 yrs</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1</td>
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<tr>
<td>2-3 yrs</td>
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<td>5</td>
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<td>1</td>
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<tr>
<td>4-5 yrs</td>
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<td>4</td>
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<td>1</td>
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<tr>
<td>6-7 yrs</td>
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<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
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<td>2</td>
<td>3</td>
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<tr>
<td>Totals</td>
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<td>31</td>
<td>26</td>
<td>22</td>
<td>4</td>
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</table>

2018 IWCA Heart Testing, Grey Summit, MO

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Normal Echo</th>
<th>Normal EKG</th>
<th>Normal EKG and Echo Abnormalities</th>
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</thead>
<tbody>
<tr>
<td>&lt;2 yrs</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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</tr>
<tr>
<td>2-3 yrs</td>
<td>8</td>
<td>17</td>
<td>17</td>
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<td>4-5 yrs</td>
<td>5</td>
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<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>22</td>
<td>50</td>
<td>43</td>
<td>19</td>
<td>13</td>
</tr>
</tbody>
</table>

TVD = Tricuspid Valve dysplasia
AF = Atrial Fibrillation
VPC = Ventricular Premature contractions
AOS = Aortic Valve Stenosis
LCS11 DATA (Continued from page 2)

for these hounds 9.4 years.

2 hounds in this cohort died of renal failure and 2 from pneumonia.

Cancer Kills 46.3% of IWs

Osteosarcoma is the number one killer and kills younger dogs. Cancer including lymphoma, hemangiosarcoma and “other” bring the total of dogs dying from cancer to 46.3% of the hounds with reported cause of death. This is even higher than previous data although it is based on much smaller numbers than past reports and thus can be misleading.

Please take the time to accurately fill in cause and date of death for your hound so trends can be verified.

Cardiac disease and rear weakness continue to kill our older hounds.

Atrial fibrillation in the LCS11 Study

Since data collection began in 1992 the overall incidence of atrial fibrillation in the IW in North America has been between 8.9-12%. The incidence increases with age and some differences occur based on the age of the population in the data.

The incidence reported from the UK is similar.

Evaluation of the 545 entry EKGs for the LCS11 showed the incidence of atrial fibrillation stubbornly remains at 11.4%.

Overall incidence of VPCs was comparable to earlier data at 3.1%. The appearance of early ventricular beats has proven dangerous for some Irish Wolfhounds. A Holter monitor is recommended if these are found on screening EKG.

11 (2%) of hounds had APCs on screening EKG. These beats are thought to be a precursor to atrial fibrillation.

39 hounds showed regular rhythm that was just faster than normal or sinus tachycardia. In the previous data this did not predict any future heart problems. These hounds will have continued follow up.

Cause of death was reported for 22 dogs being followed for atrial fibrillation.

FOLLOW-UP (Continued from page 2)

provide needed follow up on their hounds. The prompt will come yearly for routine follow up as long as their hound is identified as alive in the study.

Date of death and cause of death is needed to keep your hound in the active data base.

Please take a few minutes to complete the request and maintain the database for benefit to all hounds and future research.

Please make the effort to provide information on littermates and sire/dam if at all possible.

Horizontal pedigrees are so important in investigating the inheritance of health problems. This information greatly enhances the value of the data.

What about the EKG?

Heart disease is still the number 2 or 3 cause of death in our hounds.

The incidence of atrial fibrillation (a rhythm problem identified on EKG and associated with irish wolfhound cardiomyopathy) increases with age.

Your hound may have no symptoms and even if normal at his last check may develop atrial fibrillation as he ages.

Heart disease in the wolfhound is TREATABLE with well tolerated and mostly affordable medications.

For these reasons a YEARLY EKG is requested for the LCS11 study and recommended for all Irish Wolfhounds over 3 years of age.

Subsidized EKGs are available at the National and many regional specialties and other IW events. If you cannot attend one of these events with your hound the EKG can be done at your veterinarian’s office.

A lead 11 rhythm strip is sufficient.

It may be sent with or without an interpretation- whichever is more economical for the owner.

The EKG can be scanned and emailed or mailed to: The Irish Wolfhound Foundation, Suite 101, Evansville,IN 47714.

If the EKG is not interpreted and there is an abnormality which requires further evaluation you will receive an email within 7 days. The only EKG abnormalities that require cardiology evaluation in the Irish Wolfhound are arrhythmias as the common EKG conduction abnormalities did not lead to future cardiac problems.

THANK YOU for participating in the LCS11 Study.
The Irish Wolfhound Foundation gratefully acknowledges contributions from the following supporters

The Irish Wolfhound Foundation, Inc.
Treasurer’s Report
Balances are as of 04/15/19
$230,851.31 General Fund
$122,068.15 General Endowment Fund
$29,384.72 Rescue Endowment Fund
Total Disbursements since 01/15/19 $19,158.11
$8,194.33...Education
note education includes 80% of our website overhaul costs
$7944.31.. Health Research
$2,098.60.. General
$920.87..Rescue
Total Donations since 01/15/19 $16,979.95

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In loving memory of Donna Drake & In memory of a wonderful man, Dr Dick Rosebrook
Karen B Beddow
In Loving Memory of Donna Adele Drake
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Tina and Mark Berry
Risha and David Berzins
Angie Bixler
IMO: My girl Gewels
I love and miss you.
Joel Black
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Jan Bradley
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IMO: Houndhill Victoria of Aerie, CD
Jill Bryson
IMO: Pippin, the sweetest, kindest IW ever. Thank you Tracey & Leonard
Joanne Buehner
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Pamela Burke
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IMO: Dumfrees McDDoodles & Kellamore Storekeeper Kellamore
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In loving memory of Mary O’Brien
Paul and Janet Carter
IMO: Mary O’Brien
Tresa Carter
IMO: Mary O’Brien
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IMO: Donna Drake
Virginia Chapin
IMO: Ralph R Chapin, III
Beth Chastain
Michael Cherry
Mary Lou Ciulla
IMO: Mary O’Brien
Gina Clapper
Janet Clark
IMO: Mary O’Brien
Jenny Clark
Sue Cole
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Jane Cottrell
Louise Cox
Tina Coyle
Judith Curtin
IMO: Mary O’Brien
Donna Cassini and Dale Knowlton
IMO: Donna Drake
Ann Danby
Rosalyn Davis
Mariellen Dentino
IMO: Quinn Dentino & his daughter Irish Abrams
Laura Demmons
Kathleen DiDonato
IMO: Mary O’Brien
Amy Doherty
IMO: Mary O’Brien
Tamara Donnelly
Michael Dorchik
Andrea Dormady
Anne Dorsey
Donna Drake
IMO: Della Garret. With gratitude for what you do. And IMO: Dick Rosebrock
Ted Drake
IMO: Donna Drake
Dani Dunilho
Kathleen Dykstra
Jessica Eby
Blaine Elkins
Betsy Elliott
Facebook
Yusoon Feeney
Karon Felice
IMO: Mary O’Brien
Gayle Fikentscher
Lori Finucane
Eileen M Flanagan
Estelle Flynn
IMO: The Shancarrick Ladies & IMO: Mary O’Brien
Brian Foresman
Patricia Fostvedt-Oxendale
Jack Freund
Barbara Fryberg
Carol Gabriel
Guylaine Gagnon
Jocelyn Gagne
Michael J Gallagher
IMO: Pat Lysinger (Patty)
Edward Galvin
IMO: Mary O’Brien
Lynn Gelsomin
Dedicated to the memory of Donna Adele Drake
Kelsey Gengaro
Ylda Ghazal
Eva Giordano
IMO: Joanne Giordano
Jeri and Jimmy Glynn
Nancy S Goodman
IMO: All that have passed
Andrew Gram
Juilia Green
Ann Gould
Maria Grotano
Bernardine Harford
Rick Harreschou
Tom and Diane Hartney
Melinda Harvey
William and Cathy Haskins
Gail Hawksworth
IMO: Donna Drake In Loving Memory of this awesome lady who I will miss.
Hendricks Chapel Quilters
IMO: Mary O’Brien
Edna Henley
Andrea Herrmann
Ron Hess
IMO: Don Medoff
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Maura High
Barabra Hilbish
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Tamarah Houser
Dixie Howell-Hirsch
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Irish Assoc of the Delaware Valley
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Leola Loebelzen
Christine Lowe
IMO: Mary Crosby
Stephen Ludick
IMO: Donna Drake
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IMO: Cindy King, lover of Labrador Retrievers
Virginia Maconi
Michael Marks
IMO: Michael and Judy Marks
Anne Marroquin
Susan Marshall
IMO: Laura Graffius
Karen Marvin
IMO: Mary O’Brien
Susan Marvin
IMO: Donna Drake
Belle McCluskey
Gordon McDonald
Susan McIntosh
Jonathan Mckinney
In appreciation of Anne Janis
Bill and Lisa McKinney
Tammy McNeely-Aube
Larry Mead
IMO: Mary O’Brien
Rainer Sticht and Pamela Ment
Melanie Mercer
Melissa Meyer
Linda Moats
IMO: Donna Drake
Susan Montgomery
Clare Morrison
Michael Muffley
Pamela Murphy
Phillip and Carolyn Munro
Victoria Naegle
Network For Good
Sandra Newton
Vicky Nichols
IMO: Donna Drake
Ronni Nienstedt
Lee O’Brien
IMO: William G. O’Brien
Mary and Margaret O’Brien
“In Celebration of Tuatha’s 10th Birthday”
Jami Ojala
OKI Gazehound Organization
John O’Malley
Kathleen O’Malley
Mary O’Malley
Denise Orthals
Dennis and Amy O’Rourke
IMO: Mary O’Brien
Dorothy O’Sullivan
Barbara Patterson
Cynthia Patterson
Jeanne Patterson
Harvey Payne
IMO: Donna Drake
Kay Paz
IMO: Dr Rick Rosebrock
Betty Pearson
Mary Perry
IMO: Pippin Bryson a fun loving boy
Karla Petermann
John and Shelia Peyton
IMO: Ben Carter
Raena Phillips
In Honor of Mannix and Medb
Donna and Joseph Pitt
Rose Mary Pries
IMO: Donna Drake and IMO: Mary Crosby
Katherine Presswood
IMO: Lorraine Garland
Marybeth Prusher
Carolyn Purvis
Janet Queisser
Robin Raab
Joan Rackham
Audrey Rajec
IMO: Moriah Grace
Cindi Rankin Snoddy
Christina Rappel
Natasha Rea
IMO: Barbara Call who loved her daughters& Irish Wolfhounds
Jennifer Redline
Margaret Reid
Jerry and Chantal Reuss
IMO: David Moredock
Louise Rice

(Continued on page 8)
Photo by Mary O’Malley

Millie field running after 4 months on her alternative treatment.

Dustin Richardson
Tamara Ritzenthaler
Joe and Kathy Roland
Cherry Rolle
Lynne Rosebrock
Leslie Rothermal
Aimee Ryba
Leslye Sandberg
Linda Savage
Gabi Schneidman
Alan and Jane Schluter
Sandy Shacklett
Mary Sharkey-Christian
Debbie Sharpe
Mary Ellen Shriver
IMO: DC Eirian Coltrane Running
Patrician Silverman
IMO: If ever there were a dedicated Irish Wolfhound breeder and advocate, it was Donna Adele drake. Donna passed away February 22, 2019.

Thank you, Donna, for your energy; friendship and unerring devotion to your dogs. You are deeply missed.

Carole Silverthorne
Anne Simpson
Elizabeth Simpson
Melissa Sisson
IMO: Celtie loving fur baby of our friend and colleague. Many Hugs Melissa and Marci
Craig and Linda Kay Smith
IMO: Donna Drake
David Smith
Elizabeth Smith
Tom and Nancy Smith
Meg Noland Southard
Linda Souza
Peggy Squires
Audrey St Clair
Kim Staman
IMO: Donna Drake
Cynthia Steele
Donna Stottlemeyer
Christina Strelova
IMO: Donna Drake, For your beautiful big heart and sharing Sweetie’s story with me.
Donna Sula
Kay Sullivan
IMO: Mary Crosby
Ann Sury
Lauren Swick
Susan Tank
IMO: Merlin & Liam
Yumiko Tatsuki
Perry Taylor
IMO: Donna Drake
Linda Terefenko
Mary Thomas
IMO: Mary O’Malley’s Birthday
Sydney Thomson
Rebecca Torres
Elizabeth Utick
IMO: Barbara Call
Dawn Van Hall
IMO: Mary O’Brien
Angela Varesano
IMO: Mary O’Brien
Anne Varney
Linda Vaughn
Syracuse Parking Violations Dept
In Memory of Mary O’Brien
Gene Voorhees
IMO: Donna Drake
Diana Vreeken
IMO: MB Kinsella-Topping
Anne C Williams
Howard B Wittels
Stephen M Wolk MD
Zazzle Inc.

David Walker
Maggie Weidinger
Stephen Weir
Debra Welch
Jane Wilkins
IMO: Barbara Call
Jill Williams
Marilyn and Steve Witman
IMO: “Timmy-Our Sweet Boy”
Anne Worthmann
IMO: Donna Drake
Audrey Wright
John Wright
Julia Wright
Richard Wyrens
Dwayne Yorke
Kathi Yorke
Cathryn Zega
Zazzle Inc.
Kathy Welling
IMO: MB Kinsella-Topping
Anne C Williams
Howard B Wittels
Stephen M Wolk MD
Zazzle Inc.