VHL Family Forum

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Childbearing Choices

by Joyce Graff, Editor [1]

Sally and Tom fell madly in love and married at 19. Knowing that Tom had VHL, and with active pressure from their parents not to have children of their own, they decided to adopt children when the time was right, but in the near term the priority was to finish college. They chose oral contraceptives for now, adoption later..

Jane and Mike at 27 had been married for some years. They wanted to make sure their child would be healthy, but there was then no prenatal test for VHL. They thought about adopting, but also thought a lot about having their own child. Even though there was one gene they really didn't want to pass to this child, they still had a lot of good ones to pass along! They had a child, the "old-fashioned way," and showered that baby with love, good nutrition, and good values.

Margaret at 32 discovered herself pregnant. Her intra-uterine birth control device (IUD) had embedded in the wall of her uterus and become ineffective. She had always wanted lots of children, and wanted to welcome another child, but there were lots of issues. Her husband was very sick with VHL, and moreover had recently had a course of radiation treatment, raising questions whether it might have affected his sperm. She was the sole support of her family: a sick husband and a four-year-old. The gynecologist told her there was also a chance that her uterus could rupture during the pregnancy. She chose to terminate the pregnancy.

Sally, Jane, and Margaret have something in common -- they are all me, at different points in my life. Each time I was faced with the childbearing decision, I was a different person, enmeshed in a different set of circumstances. Today, I sometimes look back and say that I probably could have coped with that second child and it would have been okay. But I'm no longer the desperate, over-stressed person now that I was at 32. Just as we should not judge other people for making decisions other than the ones we feel are correct, we should also not second-guess ourselves for the decisions we made at other points in our own lives.

If there had been prenatal testing in 1970, would I have used it? Yes. Would I have terminated the pregnancy for a positive reading? Probably. In those days I knew only two people with VHL -- my husband and his father -- who both had bad experiences with VHL in an ancient medical era. From all we could see then, VHL was a ferocious disease. Now we know that we were seeing only the tip of the iceberg. Now we know that a change in the VHL gene doesn't necessarily predestine you for terrible things.

Life will happen to us, with or without VHL. Some of us will have better trips than others. VHL is a risk factor, just like the risk factors for breast and colon cancer that you read about in the press. With a change in the VHL gene, you have a greater chance of developing certain kinds of tumors than people in the general population, but nothing is absolute. We still have a chance to change the outcome. With prevention, early detection, and appropriate intervention, people are doing enormously better today than ever before.

I am glad to say that I have a perfectly wonderful son -- a fine young man I wouldn't trade for anyone else in the universe. He has VHL. As he and his wife approach this question for themselves, my pledge to

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them is to allow them to make the right decision for the two of them, without my interference but with my loving support. Their decision will not be absolute, it will be what it is for the time being, and it may change over time. That is their right. This year they're raising two cats and a dog.

In this issue you will find a variety of true stories depicting the choices we can make as we evaluate the extent to which we want to involve children in our lives. Each one of us will make our own choices. There is no "right" or "wrong" here -- we present this information to you in the spirit of supporting you in seeking the answer which is right for you and your partner at this point in your lives. Whatever opinions you may hear from individuals, from your relatives and friends, and even from your parents -- *are their opinions* -- to which they are entitled, and which they have the right to voice -- but they need not necessarily shape your own choice. The "right" answer for you is the one in your own heart.

1. The names of the contributors have been changed to preserve their privacy. Our thanks go out to each of them for allowing us to see into their private lives. An index and definitions for these stories appears on page 5. ❑

Our Healthy Baby

by Linda and Henry [2]

In 1992 when we decided to get pregnant we approached it as we did our professional projects -- gathering all the data, evaluating all the options. My husband in particular, trained as a scientist, felt even more powerfully than I the need to base our decision on facts. If there were a way to determine with some degree of certainty that our child were to have a high probability of an affliction worse than mine, we felt we had a responsibility to our future child to make every effort to prevent it. If we did not, we were not sure we could live with ourselves.

DNA testing was in its infancy then. The only testing available to us was linkage analysis,‡ which relied on the assumption that my father was the one with VHL. Prenatal testing (CVS‡ at ten weeks) confirmed that our daughter had inherited a chromosome other than the one thought to carry VHL in our family. We were, of course, thrilled.

Since then, we've learned that my father's very speculative diagnosis may have been wrong. He is probably not a carrier, so the linkage analysis we received with so much relief and delight is meaningless. We're glad that it gave us a positive outcome -- had it been otherwise, and especially if we had chosen to terminate the pregnancy, we'd now be devastated. DNA testing has become more accurate and more specific, allowing most families to get an accurate answer. My family is not one of those.

Planning for that theoretical child yet to be born, it seemed easy. Pregnancy seemed like something we could command at will, and we felt we were in control and responsible for the outcome. We were weighing the illness almost more than the person. But now, our daughter is not a nameless theoretical child, she is a real person. She may or may not have VHL -- we don't yet know, but we will always love her and care for her, no matter what.

‡ see definitions on page 5. ❑

A child of our love

by Paula and Lloyd [3]

For the eight years of our marriage we have hoped one day to have children, but were not yet ready for a number of reasons. Two years ago we decided to "get serious" about it. Since we clearly would prefer not to pass VHL along to a child, we went to Lloyd's doctor to discuss our options: adoption, pre-natal testing, or simply the old-fashioned method.

After much discussion, Lloyd in particular wanted a child of his own, so we began, in our mid-thirties, to try to get pregnant. Each month we dreamed and planned and used the early pregnancy test kits, only to be disappointed. Finally, tearfully, we decided to check with my gynecologist to see if something might be wrong. Months later, after a series of tests, we discovered that Lloyd's sperm count was so low that it would be nearly impossible for us to get pregnant.

What we learned – what we wish we had known before going through this very stressful year and a half – is that the epididymal cysts in VHL can sometimes interfere with fertility. In Lloyd's case, cysts on both sides were obstructing the normal delivery of sperm.

So now we are working to get pregnant by artificial insemination.‡ It's been somewhat difficult to make peace with, but on the other hand it does ensure that the child will not have VHL, which we find comforting. We chose this path rather than adoption in order to experience pregnancy and go through the birthing experience together. We will create this child together, rearing it with our love.

‡ See definitions on page 5. ❑

Grieving and Going on

by Jane and Brian [4]

I always wanted to have a baby, but VHL threw us a number of extra concerns. My father died in his 40's and my brother died young. I have had several spinal tumors.

At one point I made up my mind to have a baby no matter what -- which upset Brian very much. He was not willing to risk my health, and possibly my life. We talked, we argued -- it was not an easy time for either of us. Since then I have had two more pretty scary

spinal surgeries, so it became clear that it was better for this body not to carry a child.

It was not easy to keep to this decision, and sometimes the "baby fever" was overwhelming. Finally I found some books written for infertile couples which helped us to get through it. We realized that we needed to grieve our loss, even though it was a kind of voluntary infertility. One of our favorites: *Sweet Grapes: How To Stop Being Infertile and Start Living Again** by Jean and Michael Carter, a 1998 revised version of the winner of PMA's 1989 Benjamin Franklin Award for the best new book in Psychology/Self-Help.

We are spending our parenting energy raising dogs and working to help needy people in our community.

* Perspectives Press, the infertility and adoption publisher, P.O. Box 90318, Indianapolis, IN 46290. +1 (317) 872-3055. http://www.perspectivespress.com/reviews.html PMA = Publishers Marketing Association, a trade organization of independent publishers. http://www.pma-online.org. ❑

Having Normal Children

by Jim D., Massachusetts [5]

When we had our children we didn't know that we were possible carriers. When I lost my eye in 1960 the doctor thought it was a virus. It was not until my daughter and my niece were diagnosed with VHL that my sister and I learned what it was and how it was inherited. It was devastating.

We have a very strong, loving, and supportive family. VHL has certainly provided us with numerous serious challenges, but it has not been the only source of difficulty in our lives. My wife is one of thirteen children, and her family has suffered a number of tragic burdens, but they always deal with it. It's the reality of life. What helps the most is when families pull together, maintain a positive attitude and a positive outlook. Normal people have problems. Life happens.

Now with all the research going forward about VHL there has been a great deal of progress. I feel more comfortable knowing that my daughter and my nieces have the advantage of more advanced treatment. I'm still concerned about VHL, but I'm no less concerned about all the other risks that any couple faces in having a child. There is a risk of any number of birth defects-- we never know. We know that there is a strong possibility of VHL, but I feel strongly that the pluses of having children far outweigh the negatives. If we have a child or grandchild with any of life's problems, we will address it in a responsible manner and do the best we can.

This year at age 60 I went in for my regular VHL screening and they found an aneurysm -- unrelated to VHL, but a potential silent killer. I'm going in for repairs soon. Ironically, they would not have found it if it were not for VHL. ❑

VHL and Pregnancy

by Lisa and Randy [6]

I was diagnosed with VHL in January 1990, shortly after I had my right adrenal gland removed due to pheochromocytoma. In July 1991 I had my first brain surgery to remove a VHL hemangioblastoma. About a year later my husband and I were thinking about moving on with our plans for pregnancy, but were concerned about VHL. At this time, I had a 5 mm. cerebellar tumor, and a 1 cm. spinal tumor at the third cervical vertebra (C3) that had been located just after my first brain surgery. My father had VHL, but hadn't had any problems concerning his brain or spine. We had considered having children, but were uncertain of the effects this illness might have on pregnancy.

We tried in vain to find anyone who could tell us anything about it. Even a visit to a medical geneticist from a major university proved disappointing. At this time prenatal testing was unable to tell us whether our child would carry the VHL gene. But even if genetic testing had been available we would have turned it down. The doctor could not do amniocentesis‡ testing until I was four months pregnant, and there was some risk of injury to the fetus. Even if the baby had tested positive for VHL, we would not have consented to an abortion. We decided to move on as planned.

Besides, the VHL in my family wasn't "that bad." We felt even if our child were to carry the gene, by the time he or she were old enough to exhibit signs of the illness, VHL research would have advanced to the point where a drug or therapy would be available to prevent the illness from manifesting itself.

In July 1992 I became pregnant. By the middle of February 1993 the 5 mm. tumor was now 4 cm. large. I was immediately put in the hospital. The neurosurgeons decided to place an Omaya reservoir* in my cerebellum at the spot of the tumor so the cystic fluid could be drained until the baby was born, and I could have the surgery to remove the tumor. (The fluid surrounding the tumor had to be drained every 3-4 days). My daughter was born by cesarean section in April 1993. Six weeks later the tumor was removed. My follow up MRI showed another tumor that had been directly behind the second one. In March 1995 the third tumor was resected. Follow up MRI's showed nothing.

In January 1996 I found myself pregnant again. My husband and I were extremely scared. A MRI in June showed no new developments. I was elated, I knew I was going to make it through! In October of 1996 my son was born. (We decided to go with cesarean due to our worries of intercrainial pressure during childbirth.) At my check-up six months later, my MRI's showed no changes in my brain tumors.

Today I have no brain tumors, though the spinal tumor has showed some slow swelling. My husband and I are thrilled with our two bouncy little children. I feel it is very important for women with VHL to get all the medical information they can before and after each pregnancy. It was the cooperation of my medical team that helped manage my health and that of my daughter through my first pregnancy.

**Omaya reservoir* is a device surgically inserted under the scalp which is used in chemotherapy to deliver drugs directly to the tumor bed or into the spinal fluid. The drugs are then given through the reservoir, rather than through the back during a spinal tap. In Lisa's case the device was used to draw off fluid from the cyst.

‡ See definitions on page 5. ❑

Life

by Marie & Michael [7]

Marie: Well what do we do now?

Michael: I don't know it's such a big decision.

Marie: My mother was so sick when I was little that other people had to take care of me. I don't want that to happen to my children.

Michael: We have to look at this positively.

Marie: We have to look at this realistically. With well over 10 tumors, one of which needs to be taken out in the next couple of months with a high chance of paralysis either way, we need to think about what could happen and be prepared for the worst. If the worst doesn't happen then we'll consider ourselves lucky. I'm always going to have VHL and we need to deal with this because it's always going to be a part of my life, just in different degrees.

Michael: If there's a possible connection with tumor growth and pregnancy then I don't want to take that chance. I don't want anything to happen to you.

Marie: You will be giving up ever having children with me.

Michael: I can live without children but not without you.

Marie: I feel so guilty about this, even though I can't control it. When we met I told you I could have this disease called VHL, but I had no symptoms and never thought it would come to this. I wouldn't hold it against you if you wanted to separate; children are a big part of life.

Michael: Don't be stupid. I married you because I love you, not because you can give me children. It's my decision too.

Marie: I don't think I can go through having children knowing I could pass this on. I'm afraid I might get worse and I'm already scared.

Michael: It's a big decision. But I can live with missing out on children more than I could live with the regret of something happening to you. I want to share my children with you and having them without their mother isn't what I want. I don't want to put a child through the tests and operations. It's hard enough watching you go through this every six months. I know what a hard time you've had with your mother as well.

Marie: I feel so selfish, like I'm denying you something. Some people I've talked to said we would be sorry for not having children and will be lonely in our old age.

Michael: That's the wrong reason to have children anyway. Lots of children move away and have their own family.

Marie: That's true. I'm never going to feel what it's like to have a child move inside of me. It's such a unique and wonderful experience to give up. I'll have to live with not ever feeling that.

Michael: We could adopt.

Marie: We would be bringing a child into a home where one parent is already having a hard time.

Michael: What about the genetic testing you told me about.

Marie: If I got pregnant, an abortion is not an option for me, no matter what.

Michael: I'm more than willing to be a foster parent and a favorite Uncle. We'll just spoil our nieces and nephews.

Marie: Someone told me life with no children is no life.

Michael: Life without my wife is no life.

Marie: I hope we are making the right decision.

Michael: We are.

So three years and one major operation later we are still happily married and are going to be an Aunt and Uncle for the first time in '98. We made the best decision for us and I'm still living with the choice of not knowing what it's like to be pregnant and my husband is still sure of his choice.

There are no right or wrong choices, only the one choice we can live with best. We had many long conversations, some lasted all night before we made this decision, so don't judge people to harshly. They are only making the choice which is best for them, and it is their choice after all. I meet people every day that see us as a young couple who doesn't have children and since they do not know of our reasons tell me I'll be sorry I don't have kids. But I forgive them for their ignorance and live with my decision, knowing it was the right one for me. ❑

From the Policies of the VHLFA

4.C. Childbearing is a delicate issue. As a group, the Alliance has only one opinion: that ultimately the decision whether or not to bear a child is a personal decision on which there are only two votes that count: those of the two individual parents involved. The Alliance offers only information, not opinion, on subjects relating to childbearing, eugenics, and pre-natal testing. Particularly because of the very strong opinions around the topic of abortion, the Alliance wishes to be seen as entirely neutral on this subject.

Any individual is entitled to share their own story, as long as it is clearly positioned as their personal story, and *not* advice, and particularly as *not* the opinion or advice of the Alliance.

Roll of the Dice

by Barbara R., Florida [8]

Until a year ago I was in the l5% group for whom the DNA testing had not been helpful. Using linkage analysis, my three older children were tested for VHL in the spring of l997. Statistically, at least one of the three could be expected to test positive for VHL like me, but it did not happen. Since we still did not have a match for me, we had really learned nothing. The doctors told me they did not believe the three children had VHL, but lacking a matching test, they could not be sure. The doctors advised me not to test my two younger children until they could be sure we had a good test.

In December l997 my mother, who is in her seventies, had her DNA testing done. To our delight (yes, *delight!*) my mother's DNA test showed the same result as mine. Finally we knew we had a conclusive test and all children in the family could be tested. I immediately let my brothers and cousins know how to get the test done, and I took my two little girls to be tested.

As I write this, I am sitting on top of the world! I have 5 biological children who were at risk. It had been explained to my husband and me that each time we had a child it was like rolling the dice. All five children have now been tested for VHL, and none of them has VHL. We rolled the dice five times and five times the VHL gene mutation missed our child. After almost nineteen years of worrying that maybe all of my children had VHL, not one has it. I never dreamed my family would be so blessed.

All through the years I have been happy to share with people, with whom I have talked, that I knew I had run a risk each time I had a child. Only the two youngest were born after I was diagnosed with VHL. Prior to that time I had only known I had surgery for capillary hemangioblastomas, which might come back. However, I knew that I had the same chance of producing a healthy child as I had to produce one with VHL.

In addition to my five biological children, I also reared one adopted daughter, Katherine Ann, who died suddenly of a heart attack two years ago. She was, as far as we knew, a perfectly healthy 26 year old, the oldest of my six children. Her death pointed out clearly to us that we don't have all the answers. Just because we have VHL, it does not necessarily follow that our children will also have VHL. And VHL is not the only thing that can take our precious children from us.

There is never any way of knowing beforehand what the dice will bring. All you can know is what the possibilities are, and that you are willing to deal with whatever you roll. We are blessed. We have always believed them to be the best possible set of children we could have, and we are especially happy to know that among their life challenges, they will not have to deal with VHL.

Editor's note: Clearly not all such stories have such happy endings. VHL has a dominant pattern of inheritance, meaning that each child has a 50/50 chance of inheriting the altered copy of the VHL gene. While in this family five of five children are unaffected, in other families five of six have the altered gene, or four of four, or one of six. Each child has his or her own 50% risk of inheriting the gene, as when tossing coins. ❑

Childbrearing Choices Definitions and Index to Stories

Key: [1] p1 = article [1] on page 1.

Adoption, [1] p1, [3] p2, [7] p4

Amniocentesis, a prenatal testing method where fluid is drawn for analysis from the amniotic sac surrounding the fetus, usually at 16-18 weeks of gestation, [6] p3

Artificial insemination, medical insertion of sperm from a donor into the womb of the mother. [3] p2

Birth control, see Waiting

Chorionic villus sampling (CVS), a prenatal testing method involving taking a sample of cells for analysis from the finger-like edges of the fetal part of the placenta, usually at 9-11 weeks of gestation. [2] p2

Guilt, [9] p6

Information, not advice, [10] p7

Infertility, [3] p2, [4] p2

Linkage analysis, a method of DNA testing used when a direct test is not available. This was the only testing available for VHL before the gene was found in 1993. A study is made of the inheritance pattern of the set of genes on chromosome 3 that are usually inherited as a group. Based on analysis of these groupings, a prediction can be made whether this person is likely to have inherited the group with the altered VHL gene in it. See [2] p2, [8] p5

Not to have a child, [4] p2, [7] p4. *Birth control can be used for a provisional decision; tubal ligation or vasectomy can be used for permanent decisions.*

Old-fashioned method, [1] p1, [3] p2, [5] p3

Parenting, [9] p6

Pattern of inheritance, [8] p5

Pre-implantation testing, [12] p8, [13] p10

Pre-natal testing, [1] p1; [2] p2; [3] p2, [6] p3. See also Amniocentesis and CVS.

Privacy, [10] p7

Risks to the mother, [4] p2, [6] p3, [7] p4, [11] p7.

Termination, [1] p1; [2] p2, [6] p3, [7] p4, [13] p10

Waiting, birth control, [1] p1. For a good brief survey of birth control and childbearing assistance methods, see the internet web page designed by Dr. Robert A. Hatcher, MD, MPH, Emory Univ Sch Med, http://www.emory.edu/WHSC/MED/FAMPLAN/choices.html

Taking the Guilt out of VHL

by Peggy Marshall, Mississippi [9]

It was 1966 when the puzzle came together and the word *hereditary* was used for the first time in our family. At that time my mother, two sisters and brother were being treated for eye and brain involvement. Words can not describe the devastation Mom felt when she became aware she had passed VHL to her children. Four of her five children, three grandchildren, and one great-grandchild would have VHL. Mom was consumed with guilt and grief.

Many of you know the feeling if you are a parent or grandparent of a VHL child. I have talked with hundreds of individuals either on the VHL 800 line, at Chapter and National Meetings, and the Internet and have been asked many times "How do you handle knowing you have given this disease to your child"? We are all individuals with different coping abilities and what works for me may not work for you, but I would like to share my thoughts.

Our two daughters were checked every year by an ophthalmologist, and each time we braced ourselves for the words "I see a tumor." I knew that my role as a mother was to take care of the situation as well as I could and not fall apart. When Tammy was 14 years old, the big question was answered during a routine eye examination when the Doctor said, "There is a tumor." I asked what was going to be done and within a few minutes she had her first laser treatment.

On the drive home, I told my beautiful daughter that I was sorry she had VHL but, that I was not going to feel guilty. I assured her that we would always take care of her and make sure she would get the best treatment we could find. We went home and lived life as normally as possible. I wanted her to know that life goes on and she was still loved, still okay.

My deepest feeling as a parent is to say to other parents when they find out their precious child has VHL, "**Do not waste precious time feeling guilty because you have passed the VHL gene to your child**." Allow yourself time to grieve, talk it out with someone that can understand how you feel. You can not change the diagnosis of VHL, so you must then accept the news with as much dignity as you can muster and determine to do all you can to help your child through each episode as it comes.

How many times have you said, "I want my child to have the best"? We can do that in several ways: by being informed, having appropriate check-ups, and finding the best medical team possible. A child looks to a parent as their role model and their ability to accept having VHL may depend on how you, as a parent, cope with it yourself.

The most dreaded phone call any of us made was to call Mom and tell her we were going to have surgery. She was a God-fearing person and depended on Him for strength and yet the tears flowed like a river as she blamed herself for giving us VHL. Somehow, I determined that if either of our children (or both) had VHL, I would never make them feel that I could not handle the situation. Just before her first brain surgery in 1981, Tammy told me how proud she was to have me for a mother and proud that I was so strong. I knew then that I had made the right decision!

How have I coped with having a child with VHL? It is hard to believe it has been 22 years since she was diagnosed. Time has been a healer. I received my support from God, my husband Don, and family members for many years. The past five years I have had additional support from the members of the VHL Family Alliance. I asked many questions whenever we saw specialists. I tried to be as informed as possible and provided our medical professionals as much material about VHL as I could find. Now I carry a packet of information with me whenever I meet a new doctor.

I was quick to find another doctor when I did not agree with the prognosis. Tammy was told once that if spinal surgery were to be performed she would probably never walk again. Another time she was told her headaches and neck pain were from strain occurring when diving. Needless to say, we found another doctor that was better informed about VHL and willing to provide the appropriate test to confirm the diagnosis. I spent time writing letters to specialists from Texas to California. I could see the relief on Tammy's face as I started my campaign to find the right doctor. I succeeded in my search and found a neurosurgeon who has provided excellent care for Tammy and others in our family for the past 18 years.

VHL does make one a fighter! Become an intent listener when your doctor is giving an opinion. If you are concerned in any way, do not hesitate to get a second opinion. The VHL Family Alliance can help you by giving you questions to ask and sources of informed second opinions. Being a very active advocate on my daughters' behalf seemed to be therapy for me. The more I did, the stronger I became. Between each surgery came time when we could take a long deep breath and try to live a normal life. And with time, it became easier to accept.

Another major factor in being able to cope has been 19 years of taking care of children in my Day Care business. My days are so full and busy, it leaves little time to spend fretting. My goal has been to stay as positive as I can no matter what the situation.

Instead of spending time feeling guilty about something you could not control, focus on what you can do to make life better. There is much to be done to find a cure. After the news hits, pick yourself up,

brush yourself off, and be the best parent you can be. Focus on what needs to be done. We are indeed a very large "family" now and we can help keep each other strong. I believe that if we face adversity head on, we can rise above it. If we can learn to accept the things we can not change then we emerge strong. Let time heal your hurt. May we become united in our goals to improve diagnosis, treatment, and quality of life for all of us with VHL. We can then give our children and grandchildren the best life possible. ❑

Professional Perspective

by Debra L. Collins, M.S., genetic counselor, University of Kansas Medical Center [10]

Individuals and families who have the VHL gene, or have a chance of having the VHL gene, face many important life decisions, one of which deals with choices concerning pregnancy and childbearing. This issue of the *VHL Family Forum* presents a broad array of choices and decisions faced by members of the Alliance. Individuals deal with this decision much as they face other important decisions in there lives. Some individuals face the decision easily, with certainty, while others need much more information before they can begin the decision-making process. Some stay for long periods of time with uncertainty. Family members and health care providers need to understand and respect the variety of ways each person chooses to deal with their personal decision-making.

The stories presented here, sometimes with altered names to protect the identities of the authors, are a sampling of the kinds of issues and decisions families have faced. Decisions about childbearing are some of the most personal and private decisions one makes, and this privacy must be respected. Much as other family members want to know the choices a relative has made about childbearing, or DNA testing, the privacy of these decisions must be respected.

As a genetic counselor, I have seen many decisions, changes in decisions, and delayed decisions. Each person needs to have time, and accurate information, to help make these personal choices. As a genetic counselor, the relaying of medical facts and risk figures is only one part of the process, helping individuals and families interpret the information and helping facilitate individuals' decision-making is another, more complex part. These stories can help us all understand, empathize with, and support others who have faced decisions about childbearing and VHL. ❑

Seattle, *here we come!*

by Alice M. Coday, Conference Chair

The 1998 VHLFA Conference will be held June 5-7 at the Embassy Suites hotel in Bellevue, Washington, outside Seattle.

With the University of Washington Medical Center, we have planned an exciting program of medical advances, family support, and discussions concerning law, insurance, and alternative medicine.

Hotel reservations may be made at the special rate VHLFA group rate of $119 or $129 by calling 1-800-633-0100 or +1 (425) 644-2500 before May 15.

Registration will be $200 per health care professional, or $150 per family member, with a $25 "spouse" discount for a second person from the same address. Registration flyers with program information will be sent in March.

Registration begins Friday at noon. Meetings will be held from Friday, June 5 at 3:00 pm through Sunday, June 7 at 12:00 noon.

We're looking forward to seeing you there!

Mother Care

-- Editor [11]

For VHL women there is some question of the impact that a pregnancy might have on your own health. If you are already pregnant, please see your doctor and tell all your doctors about your VHL status. It is very important that your obstetrician be fully informed, and be in touch with any other medical specialists you are seeing. In particular, you should be screened for pheochromocytoma, which can precipitate dangerous hypertension.

If you are considering getting pregnant, please have a complete check-up and talk with your doctors about any particularly risky situations that may be there for you. There is no evidence that pregnancy causes an acceleration of the course of VHL, but it also doesn't slow it down, and it may complicate the diagnostics if something comes up during pregnancy. So as you make your babies, please be sure to take care of the mother first so that you will be healthy and energetic and be an active participant in rearing your child.

Preimplantation Testing

by Luba Djurdjinovic, Genetic counselor, Ferre Institute, Utica, NY [12]

"Is there a way to prevent the VHL gene from being passed on to future generations?" The advances in the last 10 years in reproductive medicine and rapid identification of genes through the efforts of the Human Genome Project are changing the answers to that question.

The choices that families with known inherited conditions have today are better, but they continue to be associated with challenging questions related to technology as well ethics. The following description of preimplantation genetic testing (PGT) hopes to provide an overview of this technology that has already been offered to many families with various genetic conditions, including cystic fibrosis, Duchenne muscular dystrophy, Charcot Marie Tooth, hemophilia and rare rearrangements of the chromosomes.

The Technology

PGT attempts to diagnose a fertilized egg before the pregnancy is implanted in the mother's uterus. The first PGT was reported in 1992 to assist in identifying embryos that carry the X (female determining) chromosome or Y (male determining) chromosome.[6] This was very exciting news for families where the genetic condition is passed on through the X chromosome affecting boys and usually sparing the girls. For genetic conditions where the chromosome location of the gene is known, or more specifically, if the gene sequence (code) has been identified, the potential for PGT exists.

The PGT procedure requires that embryos be retrieved for molecular analysis before implantation. Fertilization of the egg by the sperm occurs in the upper section of the fallopian tube. The fertilized egg travels down the tube and after several days drops into the uterus. It usually takes several more days to implant in the uterus and initiate the pregnancy process. During the travel of the egg within the fallopian tube, the fertilized egg undergoes cell division, so that by the time the egg gets to the uterine wall this conception will resemble a ball of cells. This is called the *blastocyst*.

Collection of fertilized eggs. There are two egg collection approaches in use by PGT Centers. One method involves collecting the fertilized egg when it drops into the uterus by flushing out the uterine cavity (*lavage*). To assure that there will be a suitable fertilized egg, PGT centers also require the use of fertility medication that will cause superovulation, meaning the ovary will produce more than one egg with the potential of being fertilized. It is important to remember that each egg has its own separate risk for inheriting the gene.

Thus, the availability of more than one egg is critical to be able to choose an unaffected egg and initiate implantation. This method does have a drawback, in that there has to be very careful timing of the lavage procedure in order to offer the best chance of retrieving an egg. There is always the possibility that the timing of this process can be unsuccessful and that an unscreened egg may implant, carrying the risk associated with that condition. It has been reported that embryos are successfully collected by lavage only 40% of the time.[4]

The method most often used for egg retrieval is *in vitro fertilization* (IVF). This procedure also requires the woman to take fertility medications that increase the number of available eggs. The eggs are retrieved 36 hours after administration of hCG. This hormone facilitates the release of the mature eggs from the ovary's surface. The eggs are fertilized in the lab with the partner's sperm. The fertilized eggs are then closely watched as they undergo cell division and develop into a blastocyst. This procedure provides more control over egg collection.[11]

Testing the fertilized egg. Once the fertilized egg has reached a 4 to 8 cell stage, one or two cells are removed from the surface of this blastocyst. One approach in cell collection is holding the embryo up "against the tip of a pipette while a fine needle is used to make a small slit in the zona (outer layer) and a cell (or two) removed by gentle suction".[3] The removed cell is then subjected to a molecular analysis. This requires the removal of the genetic material— DNA. This minuscule amount of DNA is amplified, meaning multiple copies are made through a molecular process known as PCR (polymerase chain reaction). These copies are then subjected to a molecular analysis that assists in identifying the sequence (code) that will determine the inheritance of the gene in question.

VHL

The VHL gene has been found to be on the short arm of the number 3 chromosome. The gene directs the making of a protein that functions as a tumor suppressor gene. Persons with VHL have changes (mutations) to the genetic code that inactivates the altered copy of the VHL gene. Testing for the mutation in this gene is possible in most individuals.

Identification of the mutation in the gene and tracing the gene within a family is possible for up to 80% of VHL families.[5] The optimal testing situation would be to directly read the code in the VHL gene. This is not always possible, and sometimes the gene and its chromosome is traced in a family. This tracing of affected members through the generations is called *linkage*.

To date, there have not yet been any reported cases of births where VHL preimplantation testing occurred. Laboratories involved in PGT are open to

working with families with documented gene diagnosis. Families choosing this option in the immediate future need to understand that they are participating in the development of a specific application of PGT. This then carries a certain level of uncertainty and cost for development of molecular strategies.

The cost of PGT is dependent on the collection approach (IVF or lavage) and the technical difficulty in identifying the gene. The cost for this procedure is approximately $10,000 per each cycle.[9] It is important that in selecting a PGT Center that a couple investigate the center's previous experience and the number of successful births as compared to attempted cycles and implantation. In 1992 there was only an approximate 15% rate of successful implantation that results in a live birth with an IVF procedure;[10] today some clinics have success rates as high as 50%.[13] Finally, it can take, on average, two to three cycles to achieve a pregnancy.

Safety and accuracy

The safety of PGT has not been established. This question has been of great interest since a cell is removed from the early dividing fertilized egg. To date, there have been only about 100 live births using PGT. This number is still too small to determine if the procedure carries an increased risk of birth defects over the general population. There have been no reported cases of birth defects resulting from the procedure of PGT.[7,13]

The accuracy of the preimplantation genetic diagnosis is highly dependent on the sensitivity of the gene analysis procedure available for the specific genetic condition. There are reported cases of misdiagnosis with this procedure.[8] Many centers are offering prenatal testing, CVS or amniocentesis to confirm the fetus gene status.[14]

The experience of PGT can also bring with it psychological challenges. There are feelings of loss that one has to turn to this level of technology to protect future generations. The couple has lost a sense of invincibility around reproduction that most unaffected couples experience. There are periods of anxiety since the technology carries a great deal of uncertainty.

Finally, the financial cost of this procedure is burdensome, particularly when families are looking to have more than one child.

Technology such as PGT offers hope to some couples who wish to build families but are very eager to reduce the risk of passing on the genetic condition that has burdened the family. For VHL families the opportunities are there, but they are still in development.

If someone wishes to explore this option it is important to identify a PGT Center. Learn as much as possible about this center and their approach. Arrange a consultation to discuss what you hope is available and learn what they feel can be achieved. Take your time in choosing a center.

Teen Chat!

A number of young people have requested a forum for teens, where young people can voice their concerns and support one another. ***We need you*** to help design it! As an experiment, we are offering telephone and internet modes. Check out the Teen Page at http://www.vhl.org/teen.

Young people between the ages of 13 and 17 are invited to join us on a telephone conference call:

- Sunday, April 26, 1998, 4 pm EST
- Sunday, May 17, 1998, 4 pm EST
- Sunday, June 28, 1998, 4 pm EST

These calls are open to all teens whose family is affected in any way by VHL -- whether they themselves have VHL, or a parent, brother, sister, or other relative has VHL. They will be hosted by Peggy Marshall. Peggy has had VHL since age 12. Her daughter Tammy was diagnosed at age 15, and her granddaughter Kari was diagnosed at age 9.

Please call ***now*** 1-800-767-4VHL to register for the conference and get the password.

Resources

1. The American Society for Reproductive Medicine, 409 12th Street SW, Washington, DC 20024. +1 (202) 863 4985. http:// www.asrm.com
2. Ferre Institute, Inc., 258 Genesee Street, Utica, NY 13502, +1 (315) 724- 4348. http:// members.aol.com/ferreinf/ferre.html

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4. Carson SA (1990) "Recovery of blastocysts by uterine lavage following superovulatory drugs." *J in Vitro Fert Embryo Transfer* Vol. 7:187.
5. Decker HJ et al (1997) "The von Hippel-Lindau tumor suppressor gene." *Cancer Genetics Cytogenet* Vol. 93, pp.74-83. With advances in the technology and better equipment, some labs are finding an even higher percentage of mutations. Ask each lab for its percentage success rate.
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Newsletter.

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11. Singer N (1995) "Embryo genetic disorder analysis demonstration project: A model protocol." *J of Gen Counseling* Vol.4:2, pp.139-146.
12. Zilberstein M and Seibel MM (1995) "Preimplantation genetic diagnosis: What can be done?" Faulkner Ctr. for Reproductive Medicine. *Forum*. Boston, MA.
13. Correspondence with Dr. Robert Gagel, M.D. Anderson Cancer Research Center, Houston.
14. Pre-natal testing is testing of the fetus before birth. Two principal methods are used: amniocentesis and CVS. See index on page 5 for related stories. ❑

Using PGT: Opinions from the MEN/VHL conference

reported by Joyce Graff [13]

At the Sixth International Workshop on Multiple Endocrine Neoplasia (MEN) at Noordwijkerhout, the Netherlands, in June 1997, there were several presentations that dealt with the question of prenatal diagnosis for MEN and VHL.

Dr. Robert Gagel of the M.D. Anderson Cancer Research Center in Houston, Texas, spoke about clinical use of DNA analysis in MEN2, using genetic analysis to determine risk factors and develop strategies to minimize the impact of the condition.

In the course of his talk he described one example of preimplantation screening. A patient with MEN 2A (medullary thyroid carcinoma, pheochromocytoma and parathyroid disease) and a RET proto-oncogene mutation sought preimplantation screening. The patient and his wife had made a tentative decision to not have children because of morbidity related to thyroid cancer and pheochromocytoma in other family members. The identification of a specific RET mutation causative for MEN 2A in this family and the availability of expertise in preimplantation screening led them to request in vitro fertilization and experimental preimplantation screening to avoid having an affected child.

The procedure consists of

- hyperstimulating the mother's ovaries,
- removal of eggs thru vaginal wall
- placing eggs in petri dish with in vitro fertilization, fertilize with father's sperm
- growing them 3 days to 8 cells
- teasing away a single cell, analyzing that one cell
- reimplanting only the blastomas with normal MEN genes into the mother's uterus

Their experience in this case was:

- 7 normal embryos, 4 affected, 1 testing failure
- 4 embryos were frozen for potential later use
- 3 were transferred to the mother's uterus

They had a miscarriage on the first try. On the second independent attempt there was failure of implantation. The couple decided not to try preimplantation screening, but subsequently conceived by natural methods. The MEN2 status of the child is not yet known, but the couple are happy parents.

Economically, the possibility of eliminating the altered gene is very attractive. Even though the cost of the procedure is high, the cost will be recouped in a single generation.

-$25-50K for preimplantation screening, with a success rate of 25-45%

- cost of management of MEN2 over a lifetime can range from $50,000 to $100,000.

But the emotional cost is high, and there are many ethical arguments. Will the elimination of the mutant allele from the gene pool have some long-term unanticipated effect? Perhaps there is a genius gene on the same chromosome?

Dr. J. P. M. Geraedts of the Genetics department, University of Maastricht, the Netherlands, also spoke about in-vitro fertilization. The biggest problem, he said, is that we are still unable to make a *positive* selection – we can only make a *negative* one. It would be nice if we could determine which sperm carried the altered gene and sort them out before fertilization, but we can't study the sperm without killing it. Through pre-implantation diagnosis we can choose not to implant the blastomas with the altered gene. With pre-natal diagnosis the pregnancy is already well established, and a choice to abort is problematic. His team has also found that there is a problem with false positive and false negative results, especially in dominant disorders. Dr. Maher expressed concern that not all VHL gene mutations detected in blood may be readily detected in a single cell.

The quandary is: Is an embryo a human being from the moment of conception, or does it gradually become a human being? Is pre-implantation testing more acceptable because it's earlier, or is prenatal testing more acceptable because it is a completely natural conception without danger of damage to the embryo? You take away 1-2 cells, and what are the long-range effects? We don't know. In each country the government is looking at this problem.

In the Netherlands in 1993 legislation was submitted for "severe lethal diseases with a high recurrence risk" by KEMO the Dutch agency that oversees such things. At present it has still not been implemented. "KEMO holds the view that the first clinical applications of PGT for the time being need to be restricted to severe conditions, for which no treatment is available, because of the burden, the uncertainties and the risks of this still experimental procedure." The Dutch authorities believe that the use of pre-natal testing and abortion to prevent the birth of a child with a cancer predisposition factor is not justified.

During the consensus conference, questions were posed to the attendees about their opinions about the use of DNA diagnosis in VHL.

Question: If a specific mutation is present in a definitely affected family member, at what age do you advise to have DNA analysis performed on his/her offspring?

prenatally	5%
birth	17%
1-5 years	36%
5-10 years	15%
start of clinical exams	8%
at age when children can choose	18%
when symptoms are present	3%

In Dr. Neumann's experience, parents want their children tested at 1-5 years, and we do have children with serious eye problems before age 5.

Another physician commented that it aligns with the time at which you begin clinical screening for this disease -- you simply complement regular screening with DNA testing.

Question: Would you advise IVF plus preimplantation testing (PGT)?

Never, 42%
Yes for MEN1 and MEN2 as well as VHL, 32%
Only for MEN1 and VHL (because MEN2 may be cured), 13%
Only for VHL, 13%

The attendees were hotly divided on this question. One attendee from Israel said that in cases where the condition was not 100% penetrant (where everyone has severe problems), using such a method is ethically very questionable. Throughout Europe anything that appears to be "selective breeding" raises unhappy memories of Nazi policies. IVF/PGT is not allowed in Germany, and the physician cannot even recommend a doctor in another country who performs this procedure. Employees of the U.S. National Institutes of Health can not even comment on this topic. ❑

When's the Next Meeting?

...Please Join Us!

Teen Conference Calls:
- Sunday, April 26, 1998, 4 pm Eastern standard U.S. Time (=3 pm Central, 2 pm Mountain, and 1 pm Pacific time, 8 pm in London, 7 am in Sydney).
- Sunday, May 17, 1998, 4 pm EST
- Sunday, June 28, 1998, 4 pm EST

Raleigh, North Carolina support meeting Saturday March 28, 2-4 pm, with speaker Dr. Jeffrey Vance: *Genetics and VHL*. Edenton St. United Methodist Church, 228 W. Edenton St, near the Capital Bldg.

Memphis, Tennessee support meeting in April, 1998

Stanford, California chapter meets April 18 at the Stanford University Medical Center. Call 805-541-5658 for more information.

Boston, April 19, Cabaret night benefit -- fun and music with entertainers John O'Neil, Carol O'Shaughnessy, and Jan Peters at the Lyric Stage. This very special cabaret event will have you laughing, crying and on your feet cheering -- a magical evening not to be missed! Tickets $15 and $25. Call 617-232-5946.

Grand Rapids, Michigan support meeting, May 9

VHLFA Patient/Provider Conference,
Seattle, Washington, June 5-7, 1998. Embassy Suites, Bellevue. See page 7.

Third International Symposium on VHL,
Paris, France, September 16-18, 1998. Le Sénat, Jardins de Luxembourg convention ctr. See page 13.

VHLFA Patient/Provider Conference,
Atlanta, Georgia, spring 1999.

Need more details? please contact the hotline at +1 800 767 4845 or info@vhl.org.

Cancer Defense Requires a Good Night's Sleep

WASHINGTON, MD — January 23, 1998 — Disrupted sleep may be weakening the immune systems of elderly widows and widowers, new findings suggest.

Researchers at the University of Pittsburgh Medical Center Health Systems (UPMC) Western Psychiatric Institute and Clinic in Pittsburgh, PA., studied 29 patients aged 40 to 78 who were seeking treatment for bereavement-related depression.

Each patient spent three nights in a sleep lab as part of a double-blind, placebo-controlled study of the treatment of bereavement-related depression between 1995 and 1996. None of the subjects had any infectious illnesses at the time and all were experiencing their first lifetime episode of major depression.

Analysis of their blood samples showed that those whose sleep had been disrupted had decreased levels of natural killer cells (NKCs), which take their name from the way they help destroy illness-causing cells. A decreased NKC count indicates a weakened immune system and a body more vulnerable to illnesses, including VHL.

The study, published in the January-February issue of *Psychosomatic Medicine*, provides the first direct evidence that sleep disruptions are associated with the stress-immune relationship in humans, the researchers explained.

"Stress-related intrusive thoughts and avoidance behaviours were associated with greater time spent awake during the first sleep cycle which, in turn, was associated with lower numbers of circulating NKCs."

The findings prove that maintaining good sleep is important for the elderly to maintain health, according to the primary author, Martica Hall, PhD, of the University of Pittsburgh Medical College's department of psychiatry. She said the findings show the importance of developing interventions that reduce illnesses caused by stress-related sleep disruptions.

Although sleep disruptions associated with bereavement or other stressful life events may play an important role in illness susceptibility, Hall said, it is not yet known whether doctors can improve patients' health by improving their sleep.

"We know that it is better to treat the underlying problem, bereavement-related depression, than to simply treat the symptom, disturbed sleep, with a sleeping pill," Hall said. "The potential health benefits of treating bereavement-related depression, including its sleep disruptions, is one of the research avenues we are now following."

Press release provided by Doctor's Guide to the Internet, a service of P\S\L Consulting Group. http://www.pslgroup.com/dg/51e42.htm ❑

Advocacy and You

-- Don Marshall, Mississippi, part 2 in a series

If not me...Who? If not now ....When? We have the right to petition our government. Not only do we have the right, but also the responsibility, to let our Legislators know how we feel about issues important to us. Every one of us has special interests that affect our lives directly. These interests may seem to be of importance to us individually and we may feel that our singular opinion will carry little weight. However, our collective opinions do carry weight. Our Legislators react to messages from their respective constituents. The threshold of attention appears to be when between 30 to 35 constituents present the same issue. How do we present our message effectively?

There are several methods of gaining the attention of our Legislators. Some are more effective than others. The most effective method is direct contact. Each Legislator maintains an office in Washington D.C. and is normally there during the Legislative Session. You can make arrangements for an appointment by contacting the Legislator's office. It is not always possible to meet directly with your Senator or Representative but arrangements can usually be made to meet with one of their staff. Each Legislator has a staff of persons to assist in areas of their expertise. You should try to meet with the staff member that is responsible for the area of your concern.

When Congress is recessed, the Legislators are usually back in their home states. Each of them maintains offices within their state or district. Contact their local office and arrange for a meeting. Some Legislators have public meetings around their state or district. During these meetings you can express a concern, or better yet, have several others present that can support your cause. Again, do not underestimate the power of numbers as the more people concerned about a given issue, the better the chance of prompting action.

It is very important that you prepare for this meeting. Your request should be specific — relating to a particular need — concrete, real, actual, and backed by actual life stories. The broader the base of your support, the more likely your Legislator will listen. Watch your local media and become involved in the beginning of an issue. You will have more effect at the beginning "grassroots" level than later in the process. However, do not give up on an issue of concern. Let your voice be heard!

Although direct contact is the best, there are several other ways to contact your Legislator. Personal letters written and signed by you are the most effective. Generally, these letters are read by a staff aide and in most cases are responded to by a "form" letter. If enough letters on a given issue are received, the Legislator will react. As mentioned earlier, 30 to 35 letters on the same issue tend to be the trigger point. Almost every Legislator receives a count of how many letters were received on various issues each week. Do your homework and prepare a letter that contains pertinent information, as well as personal stories. Find out the names of the staff member that handles the particular issues you have. Address your letters to that person. If you do not receive a response in a few weeks, write again. Persistence often pays off with results.

Telephone calls, E-mail, post cards, and even letters to the editor of your state and local newspapers have an impact. In all cases be specific, concise, practical and above all, polite.

In the next issue of the *VHL Family Forum* we will look at how to find out about the pending issues and legislation that will affect us.

Nominations are open!

for the Board of Directors and Committees. Elections will be held at the Annual Meeting in Seattle in June. Terms are two or three years. In particular, we are looking for people to work on fund-raising, publicity, and legal and insurance issues. Nominate yourself or another deserving person. Please send a letter to VHLFA, 171 Clinton Road, Brookline, MA 02146.

Meet the Directors

Kelly joined the Board this year as Treasurer after assisting her mother, Audrey Tobin, for 2 years. Kelly's Mom has siblings with VHL, has known about VHL most of her life, and has fortunately led a healthy life. However, recently, at the age of 49, her Mom learned through DNA testing that she does have an altered VHL gene, even though she has no clinical manifestations of VHL. She is hoping to help researchers identify what has kept her from developing VHL symptoms, and that that knowledge can be used to moderate VHL in other people.

Kelly first heard about the VHLFA when her aunt Lois Erickson (also another Board member) contacted Joyce Graff in 1993.

Kelly works at Norwest Corporation in Minneapolis, Minnesota, as a Systems Audit Specialist. She has worked at Norwest for 8 years. Kelly is married and lives in Lakeville, a suburb of Minneapolis. ❑

London Concert Honors Tim Mason

adapted from the program notes of Marshall Marcus and Jan Mason

The Orchestra of the Age of Enlightenment (OAE) presented a concert in memory of cellist Timothy Mason in London in January. Mark Elder conducted a beautiful program featuring selections from Mozart and Haydn to Stravinsky: a heroic attempt to compress something of Tim's musical personality and world into a single evening. Proceeds of the concert were presented to the British Association of Cancer United Patients, their families, and friends (BACUP), and to the Von Hippel-Lindau Fund for Cancer Research. "To know that you are part of an international group, all fighting for the same goal -- to make VHL a manageable condition -- is both a challenge and a comfort."

Timothy Mason, one of the principal founders of the OAE and its first Chairman, and a cellist with the orchestra for many years, passed away from VHL in 1997. By the time Tim was diagnosed with VHL, undetected kidney cancer had already spread. His children have the advantage of early surveillance.

"Tim was the quintessential musician's musician," Marshall Marcus wrote in the Introduction. "Ever alert to the weaknesses of us lesser mortals in matters of fact and music, he combined a staggering 'donnish' grasp of the academic perspective together with a sustained passion for the music itself. Yet with these rather severe characteristics went an often unnoticed sense of humour. To behold this combination in action was an entertainment enjoyed by generations of London musicians."

The concert was a celebration of Tim's life by his friends in the OAE and performers from Tim's wider circle of friends and colleagues: English Baroque Soloists, the Monteverdi Choir, Capricorn and the Gainsborough String Quartet including Michael Chance, Philippa Davies, Tony Pay and Julian Jacobson. His wife, Jan Mason, wrote in the programme, "He would have been amazed at such a gathering, delighted by such an eclectic programme so beautifully played and sung by so many of his friends and colleagues, and deeply touched by the generosity of everyone who participated. Special thanks go to the orchestra and choir, Mark Elder and all the soloists, and to the indefatigable OAE office staff.

"In celebrating Tim's passion for music, his idealistic approach to life, his sometimes perverse humour and his astonishing capacity to keep striving for what he believed in, we can take the memory of him into the future, not just to comfort us but to encourage us to try a little harder and to see a little further." ❑

Join us in Paris!

More than 100 physicians have pre-registered so far for the Third International Symposium on von Hippel-Lindau in Paris in September.

The meetings, held in English, will be held September 16-18, 1998, at the Palais du Luxembourg, very near the Quartier Latin and the Sorbonne, the heart of Paris university life. To make hotel arrangements contact your local travel agent or ***Diftours***
6, rue Monsigny, 75002 Paris, France
Tel: +33 1 4296 8082

Abstracts may be submitted through May 31 to Dr. Stéphane Richard, Necker Hospital, Fax: +33 1 4449 5421, E-mail: sr.gefvhl@nck.ap-hop-paris.fr

Remembering Tom

Thomas Werner, April 15, 1973-Feb 27, 1997
by Evelyn Werner, New York [9]

A young man with a bright future, a young man who was loved by all.

VHL ended Thomas' life, but it didn't ruin his life. VHL was part of what made him the brave, loving young man he was. Tom watched his eldest brother Robert, his early mentor and godfather, grapple with VHL, knowing he too had the disease. As a toddler Thomas accompanied Robert to physical therapy, making him laugh and creating amusing distractions for his older brother. Robert taught him the alphabet, how to spell and read. A sixteen-year-old and a two-year-old constant companions bonded together by a disease.

Thomas was an inspiration to his family and everyone else who ever met him. His friends, family, schoolmates and professors were constantly in awe of his talents. He was a true Renaissance man, winning speech contests, writing poetry and making movies. Thomas could do it all in spite of all his adversities. At fifteen he appeared on the Wheel of Fortune. At eighteen he was hoisted out of his wheelchair into a small helicopter for a flight into the Grand Canyon. Two short months before his death, he graduated with honors from Hofstra University's Film School.

Thomas was a great son, a great brother and uncle. Thomas joins his big brother Robert in heaven and I'm sure they're having a ball. We miss them both greatly. Our biggest wish is for researchers to find a way to improve diagnosis, treatment, and quality of life for all our VHL families.

Editor's Note: Evelyn and Bob had five children, three of whom have VHL. Two of their sons died before age 30. Evelyn herself is in her 60's and has had relatively mild problems with VHL. Her daughter Christine who does not have VHL, has three children, the youngest of whom has trisomy 18, a severe birth defect, not related to VHL. Having learned from her brothers how to persevere in the face of physical challenge, Christine and her husband take all three children on family outings, with baby Mary's oxygen supply close at hand. ❑

This issue is dedicated to memory of Meg Irvin Moody of Illinois.

Our thanks for Contributions . . .

In Honor of . . .

All the volunteers, by Carol S. Karal
the VHL Hotline, by Sandra & Jerry Parker
Roxie Ahlvin on her 80th birthday, bu Lois P. Erickson
E.B., from A. M. Baker
Terry Blazich, by Hugh Murphy
Lisa & Pierre Bonneau, by Pia and Winthrop Munro
Andy Braden, by Robert & Mary Lombard
Darlene Byrd, by Joal Fischer
Alice Coday, by Albert Young
Tania Durand, by Anthony & Jill Valentino
Stewart & Mary Duval, by Sharry Brydon
Troy Eckerman, by Carl B. Baumgartner
All my family and friends, by Joyce Graff
Joyce Graff, by Karen Freed, Marian F. Hege
Lonzo Hayes family, bu Rachel Fowler, Ruth Fowler, Brenda Jones, Linda Skinner
Altheada Johnson, by Lillian White
Patti Kohlen, by Samuel M. Genensky
Becky & Jean Lima, by Tony & Darva Berkompas, Amber Grimm, Peter & Roselyn Letzmann, Carolyn & Howard Rubin, Rebecca Waltman
Jean Lima, by Becky & Peter Lima
Eva Logan, by James & Christina Mangie, Peggy & Don Marshall, Joyce Graff
All our family & friends, by Ellen & Robert Lydon
Robert Lydon, by Clare O'Brien, Regina O'Brien, John & Mary Sokop
Peggy Marshall, by Vivian DePaul
Gregory Martin, by Harold E. Martin, Susan Martin
Will Minster, by Albert Young
Fran Mott, by Richard & Judith Fanco, Joann Werksma
Tammy Nash, by Doug Johnson, Opal Rutledge, Noble & Sandra Williams
Natalie Olson, by Cindy Olson
the Coleman family, by Harry & June Wilcox
the Manasterski family, by Harry & June Wilcox
Sally Overman, by Harry & June Wilcox
the Pipes family, by Harry & June Wilcox
Harry & June Wilcox, by Virginia Worthington
Virginia Worthington, by Harry & June Wilcox
Korrina Sanchez by Tom & Denise Bousquet, Stephen Cramer, William M. Hassler, Jed Manocherian, BMS Management, Dan & Patti Miller
Ric, Erich, and Travis schneider, by Beth Walker-Schneiderwilc
Nancy Southern, by Luann & Mathew Mascorro, Phil Southern
Pat Stepper, by Diane Lilienthal, David Oddo
Evabeth Thomas, by Ray & Patricia Larson
Audrey Tobin, by Susan & Don Tenney
Mr. & Mrs. Tim Walter, by Joseph Chapko

In Loving Memory of . . .

Verna Wilcox Alair, by Harry & June Wilcox, Joyce Graff, Rachael Morgenstern, Margaret & Grayson Smith, Jim & Sedenia Wilcox
Rondo Anderson, by Amy Anderson, Paula Duet
Virginia Botti, by Betty Heide, Mrs. Emily Heide
Delmer Breshears
Mary Campbell, by Mike & Fran Mott, Molly and John
Lloyd Erickson, by Lois P. Erickson
Constance Feinstein, by Alan Feinstein, Betty Heide
Carolyn Flanagan, by Wilma Elkins
Michael Godwin, by Kathleen Neary
Frank Warren Graff by Joyce Graff, Dwight & Rosanne Hamblet, Ricky & Don Safer
Dr. John Graham, by Robert John Bayer
Adam Handman, by Edward & Shirley Handman
Robert Harding, Australia, by Jennifer & Bruce Kinston, Joyce Graff
Rosie Hayes, by Peggy & Don Marshall
Ron Held, by Kathleen Hurley
David & Pete Jackson, by Janice Jackson
Mrs. Beatrice Johnson, Fred's mother
John & Anna Johnson, mother & father, God bless, by John & Rina Johnson
Kevin Levine, by Cheryl & Rob Risser
Marjorie Martin, by Susan Martin
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Fifth Anniversary Issue - What we have Learned

Five years ago when three families got together to form the VHL Family Alliance, our greatest concern was to assemble knowledgeable medical information about what was then quite a mysterious, little known condition.

In June of 1993 the gene was found, beginning a new era of DNA diagnosis. In addition to being able to diagnose VHL through a collection of signs and symptoms, the possibility now existed to identify people with no clear set of clinical affects. By 1998, this technology is fairly well established in a few well-equipped centers, and is available to physicians and families worldwide.

Major studies on VHL have been conducted over the last 5-10 years at the University of Freiburg, Germany; the U.S. National Institutes of Health; and the French VHL Study Project in Paris.

Shift in Perspective

What we knew as of 1993 was that everyone with clinically diagnosed VHL has a change in the VHL gene. What we ***do not*** know is: what percentage of people with a change in the VHL gene ever develop clinical symptoms of VHL? Have we perhaps been looking at the tip of the iceberg -- only recognizing the people with clinically significant symptoms?

Variability of Expression

We often see wide variations among siblings in the same family, with the same copy of the VHL gene -- one sibling with a very light case, another sibling with a very severe case. Now we are finding an increasing number of adults in their 50's and older who have the VHL mutation, but few if any clinical affects. In the last year we have seen two sisters diagnosed in their 80's, one 76-year-old, one 60, one 49 -- all with no presenting clinical symptoms. These diagnoses were all made through DNA diagnosis, usually to understand the source of VHL in a child or grandchild.

New Way of Speaking

We are realizing now that VHL is a genetic risk factor, like the genes for breast and colon cancer. It is a predisposition factor. It does not automatically create a certain set of effects. It is clear that there are some "modifier effects" among our other genes and in diet and environment which we do not yet understand.

It's as though you have been given ten tickets for the lottery. You don't know if you're going to win anything or not. But you shouldn't simply throw them away -- you should watch for results just to make sure. Knowing that you have a change in the VHL gene is an early warning sign which you can use to your advantage to take protective action so that you never experience the worst effects of VHL.

Drawings
Paintings
Photographs
needed for next year's calendar!

Entries due May 1.

Twelve winners will be chosen, to be included in the 1999 VHLFA Calendar. Winner will be announced at the Annual Meeting. Send photocopies or photographs only. Entries cannot be returned.

VHL Family Forum
Newsletter of the VHL Family Alliance
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