

Pediatric hand abnormalities

A symptom, a condition, a challenge

The abnormal hand of an otherwise healthy baby may be just an abnormality or it may be a symptom of a much more serious condition. Regardless of the etymology, a hand abnormality can become a childhood challenge if left unresolved. Hand abnormalities can affect independence skills, such as grasping, eating and dressing, as well as technology, athletic and leisure skills. Simple functions many children take for granted become extremely difficult to negotiate. Children with hand abnormalities may also fall victim to childhood bullying and may be ostracized for being “different.”

A visible indication of a hidden condition

Hand conditions treated by the pediatric orthopedic specialists at Swedish Medical Center run the gamut of trauma or fracture, neonatal brachial plexus
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Advancements in aneurysm repair

New options for patients with aortic aneurysms

During the last 20 years, advancements in technology have allowed clinicians to investigate new approaches to aneurysm repair. Historically aneurysm repair has meant open surgery with general anesthesia, a five-to-eight day hospital stay and a month or more of at-home recovery. For young patients, this remains the appropriate treatment modality. With the average age for patients needing aneurysm being 69 years, however, most patients needing aneurysm repair have multiple co-morbidities and are at increased risk for surgery. For these patients, a minimally invasive approach offers an excellent alternative.

In the 1990s the development of endografts added a minimally invasive surgical option to aortic aneurysm repair using stents inserted through arteries in the groin. **Robert M. Bersin, M.D.**, a board-certified interventional cardiologist at Swedish Heart & Vascular Institute, has been involved with these efforts from the beginning. As an integral member of the phase I, II and III trials of one of the first endografts (AneuRx® by Medtronic), Bersin was one of four physicians to present to the U.S. Food and Drug Administration for device approval. Other
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Swedish Medical Center offers you a simple, streamlined transfer process to secure appropriate beds for your patients. Calling one toll-free telephone number, 866-470-4BED (4233), also ensures our receiving staff have the information and orders they need to assume responsibility for your patient's hospital care.

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is ready to assist you.

Case Report: Pediatric hand abnormalities

Suzanne E. Steinman, M.D., Pediatric Specialty Care

A 23-month-old child presented with bilateral hand abnormalities. The child was born at 39 weeks in an uncomplicated delivery and was noted to have a small thumb on the right hand and a rudimentary stalk for the left thumb. The patient had a negative family history for any congenital hand problems.

Medical History:

- Imperforate anus status post reconstruction
- PDA (patent ductus arteriosus) closed without intervention
- Normal renal ultrasound
- No abnormalities noted in the trachea or esophagus
- Normal spine imaging
- Normal CBC
- DEB genetic test for Fanconi's anemia negative

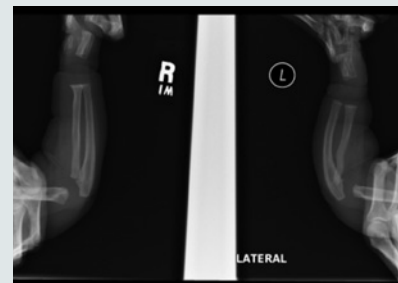
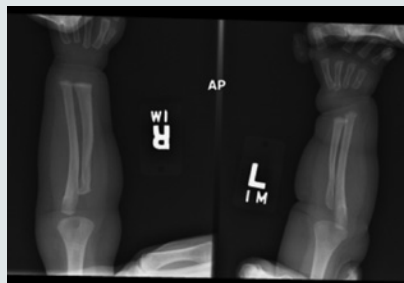
Physical Examination: I noted the child's right elbow had full range of motion. There was a hypoplastic thumb on the right hand that was unstable at the MCP joint. The child was able to grasp objects using the thumb and all fingers on the right hand. The patient had had a flexion contracture at the left elbow that had improved from 40 degrees to 10 degrees with stretching and occupational therapy. There was a pouce flottant (rudimentary thumb) on the left hand. The child was able to pinch objects

between the index finger and long finger, and had good motion at all joints of the index finger.



Diagnosis: VACTERL with Left Type IV thumb hypoplasia and Type II radial dysplasia; Right Type IIIB thumb hypoplasia and Type I radial dysplasia

Care Plan: Pollicization left index finger. ☞



Pre-operative radiographic images.

Pediatric hand

(continued from A1)

palsy and cerebral palsy to congenital hand differences.

A congenital hand abnormality may be a pediatrician's first indication of a more serious syndrome or genetic condition. For example, a radial club hand may signal a heart condition, or renal or spinal problems. It is, therefore, important

for the child to be referred to a specialist who is knowledgeable about which hand differences are isolated entities, and which are associated with other, more pressing problems. Although most surgical procedures are delayed until after the child's first birthday, this type of evaluation should begin immediately after

birth to rule out or address "hidden" medical conditions and to get necessary therapy to help the child during the early years.

For more information about the Swedish Pediatric Hand Program, contact **Suzanne Steinman, M.D.**, at suzanne.steinman@swedish.org or 206-215-2700. ☞



Pre-operative



Post-operative

About the author



Suzanne E. Steinman, M.D., received her medical degree from the University of Washington School of Medicine. She completed her orthopedic surgery residency at the University of California San Diego and her fellowship training in both pediatric orthopedic surgery and pediatric hand surgery at Texas Scottish Rite Hospital for Children in Dallas, Texas. In addition to general pediatric orthopedics, Dr. Steinman has received extensive training in the treatment of congenital hand deformities, brachial plexus palsy, pediatric hand trauma and contractures of the upper extremities due to cerebral palsy.

Swedish TeleHealth Remote Monitoring

Linking at-home patients with health-care providers



It's a common concern among health-care providers: How do you ensure patients are continuing to recuperate or are effectively managing their medical conditions while they are at home without scheduling multiple — and often unnecessary — office or emergency department visits?

The Swedish TeleHealth Remote Monitoring Program provides a vital link between patients and health-care professionals who can monitor their health, track vital information and facilitate direct patient/provider communication when appropriate.

Patients who may benefit from TeleHealth Remote Monitoring include:

- Home-bound patients
- Patients with chronic illnesses, such as diabetes mellitus (DM), congestive heart failure (CHF), hypertension and chronic obstructive pulmonary disease (COPD)
- Patients who have had open-heart surgery
- Patients who are recuperating at home after a stay in the hospital stay
- Patients who are on hospice care

TeleHealth Remote Monitoring complements in-home care that is provided by nurses from Swedish Visiting Nurse Services (SVNS). It also teaches patients to take an active role in their health care.

Patients who meet remote monitoring criteria receive a Health Buddy® for their homes. The Health Buddy is a monitor that transmits
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Aneurysm repair

(continued from A1)

available endograft devices include the Excluder® by W. L. Gore & Associates, the Zenith® by Cook Medical, the Endologix Powerlink System, and the Talent™ by Medtronic.

The benefits of the endograft approach to aneurysm repair include:

- No open surgical wound
- No general anesthesia
- Shorter procedure time
- Less pain
- Shorter hospital stay (next day discharge)
- Shorter at-home recovery

Not all patients, however, are good candidates for endograft repair. Key to determining appropriateness is the size of the aneurysm and quality of the aorta above and the leg arteries below the aneurysm.

In July 2008 Medtronic introduced Endurant®, a smaller (18F), more flexible device that is easier to implant. While currently only available in Europe and other regions

outside the United States, the U.S. Approval Application has been submitted and availability in the U.S. is expected sometime in 2011. Lower-profile devices have been developed by Cook (Zenith® AAA LP 16F), TriVascular (Ovation™ 14F) and Cordis (Ambition™ 12F). These third-generation devices are much smaller (16 French, or approximately 5 mm, or smaller) allowing for a completely percutaneous insertion. This type of procedure is truly minimally invasive because it obviates the need for any incision. Additionally, these newer, smaller devices allow implant through diseased or previously used leg arteries, and can be successfully used on women and Asians who tend to have smaller frames and arteries.

In addition to being involved in the development of the AneuRx endograft, Bersin has been involved in the design and development of the Cordis Ambition™ 12F endograft (4 mm), which is the smallest to

date and can be inserted percutaneously in almost anyone without the obligation to use any closure system. The first-in-human (FIH) trial of this device was recently completed in Germany. Later this year Swedish will be one of the first three sites in the U.S. where it will be available.

As endografts get smaller and easier to introduce, the clear expectation is that risk of complications will decline, length of stay will continue to shorten, and overall patient health and long-term outcomes will improve upon the already excellent results. ∞

When to refer to Swedish

- Thoracic aneurysm 5.5 cm or greater
- Abdominal aneurysm 5 cm or greater
- Iliac aneurysm 4 cm or greater

For more information about minimally invasive aneurysm repair or to consult on a patient, contact Robert Bersin, M.D., at robert.bersin@swedish.org or (206) 320-4399.

About the author



Robert M. Bersin, M.D., MHP, received his medical degree and master's of public health in health services administration at the University of California Los Angeles Schools of Medicine and Public Health. He

completed residency training in internal medicine and cardiology at the University of California San Francisco. Following his training, he received a faculty appointment in cardiology at the UNC School of Medicine in Chapel Hill, N.C., and also served as director of the Peripheral Invasive Laboratory, Carolinas Medical Center in Charlotte. Dr. Bersin is the current director of Endovascular Services and Clinical

Research at Seattle Cardiology, and medical director of Endovascular Services at Swedish Medical Center. Because of his early focus on endovascular therapies, Dr. Bersin is considered a pioneer in the development of endovascular interventions. He is particularly well known for aneurysm endografting, renal and carotid stenting, and lower extremity interventions.

Case Report: Percutaneous aortic aneurysm repair

Robert M. Bersin, M.D., Interventional Cardiologist, Swedish Heart & Vascular Institute

MC is an elderly patient with a history of atrial fibrillation treated with warfarin and end-stage lung disease on home oxygenation. A CT scan demonstrated a large, 5-cm abdominal aortic aneurysm. (See Figure 1) Although MC was not a good operative candidate for surgical repair given advanced age, frail status and end-stage lung disease, the patient was found to be a good candidate for endograft repair of the aneurysm.

Using an aortic endograft, the aneurysm was repaired in approximately 90 minutes. Neither general anesthesia nor surgical exposure was needed. (See Figures 2 and 3)

With first generation devices, open surgical arteriotomies were required in order to insert these relatively large 21-24 French size (7-8 mm) devices. (See Figure 4)

In the case of patient MC, the entire procedure was done percutaneously with the use of the Perclose suture mediated arteriotomy closure device without the need for any adjunctive surgery. (See Figure 5)

The post-implant CT angiogram demonstrated complete thrombosis of the aneurysm with no residual blood flow to the aneurysm sac (no endoleak). (See Figure 6) ☞

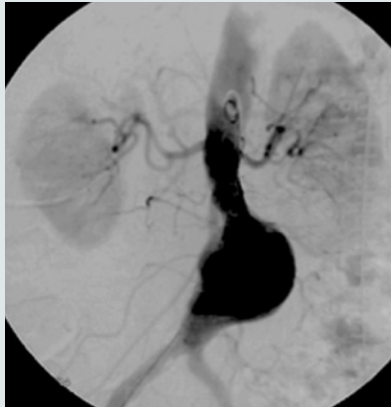


Figure 2. Pre-operative angiogram



Figure 3. Post-implant angiogram

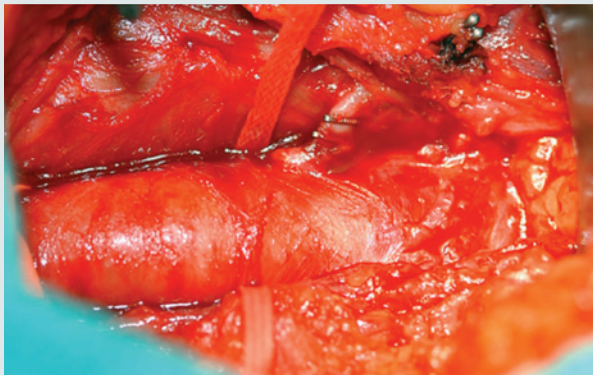


Figure 4.
Open surgical
arteriotomy



Figure 5.
Percutaneous
closure using the
Perclose Prostar
device



Figure 1. CT angiogram



Figure 6. Post-implant
CT angiogram
demonstrating
complete thrombosis
of the aneurysm

Be SMART about medical imaging


A campaign to educate patients

In the late 19th Century, a German scientist accidentally discovered that radiation could see through solid objects, including human tissue. Since that historic day, many industries – including construction, engineering, manufacturing and transportation – have adopted radiation as a common and widely used method of visualizing inside objects. In health care, it has become a valuable tool to screen for, diagnose and treat numerous medical and dental conditions.

As new technologies have increased the use of radiation, there also has been increased publicity about the potential risks associated with exposure from both familiar

and unfamiliar sources of radiation.

Swedish Medical Center recently launched a “Be SMART about medical imaging” campaign to educate patients about exposure to radiation. A new handout, which is available in all Swedish imaging centers, answers common questions about radiation exposure from medical imaging. The goal is to encourage patients to be informed health-care consumers.

Physicians who would like to make this information available to their patients are invited to go to www.swedish.org/patientsafety to download and print the “Be SMART about medical imaging” handout. 

Remote monitoring

(continued from A3)

critical patient information through a telephone line every day. Information patients may collect and transmit includes:

- Blood pressure
- Heart rate (pulse)
- Weight
- Blood oxygen level (pulseoximetry)
- Blood glucose

A TeleHealth nurse monitors the information and will coordinate with an SVNS nurse if a home visit is needed. The TeleHealth nurse also can call and speak with the patient or, as appropriate, speak with the patient’s physician to facilitate changes to the home-care plan. This type of close monitoring can help avoid unnecessary and unwanted trips to the doctor’s office or emergency department.

“The use of in-home monitoring has tremendous potential to increase the collaboration between the patient and the care team,” says **Tammy Cress, R.N., MSN, FAHA**, director of TeleHealth/Swedish Medical Center. “It provides the tools for patients to take increased ownership in managing their illnesses, while simultaneously helping the care team to have real-time data and information about how the patient is actually doing in the home. Multiple studies have demonstrated that this proactive management model is an effective way to promote wellness.”

Remote monitoring is like providing a daily mini-medical exam in the comfort of a patient’s home. It gives patients peace of mind knowing that even though they are at home, a medical professional is monitoring their well being. And, it gives health-care providers clinical support so they can allow their patients to

Be SMART about medical imaging

Seek information

(Learn about monitoring and protecting yourself and your children from over exposure to all types of radiation.)

Make informed decisions

(Carefully evaluate imaging options with your doctor.)

Ask your doctor to explain his or her decisions

(Is this the only imaging option? How will it help me? How much radiation will be used? What are the risks?)

Record radiation procedures

(Keep track of your medical imaging, as well as any radiation therapy you may receive.)

Tell health-care providers about previous procedures

(Be sure to share information about previous X-rays, scans or therapies with all of your health-care providers.)

Remote monitoring

(continued from A6)

recover or remain at home.

“This is a terrific program,” says **Rebecca Duke, M.D.**, “It helps us provide better care to the patient, while decreasing costs over the long term.” This sentiment is echoed by **Leslie Vietmeir, ARNP**, who has been using remote monitoring with a cardiology patient. The patient has been able to avoid multiple office visits because most of the

medical management is handled over the phone. It also has been helpful in getting the patient in to see his cardiologist before a situation becomes a crisis.

For more information about the Swedish TeleHealth Remote Monitoring program, contact **Tammy Cress, R.N., MSN, FAHA**, director of the Swedish TeleHealth Center at tam.cress@swedish.org or 206-320-3112. 

CME Course Listing

January – September 2011

Physicians from across the region and around the world come to Swedish Medical Center’s Continuing Medical Education (CME) courses to learn about new research and innovative treatment techniques.

For times and locations, go to www.swedish.org/cme or call 206-386-2755.

Seventh Annual Pediatric Specialty Update for the Primary-Care Physician

Friday, January 21

Multimodal Treatment of Spinal Tumors

Friday, February 25

High-Risk Obstetrics: Tools for the Family Physician

Friday, March 4

A Course on Compassion

Friday, March 11

The Art and Science of Combining Naturopathic and Allopathic Medicine in a Clinical Setting

Friday, March 25

Pacific Northwest Head & Neck and Thyroid Cancer Update

Friday, April 1

Emil Jobb Gastroenterology Symposium

Friday, April 15

R3 Talks

Friday, April 22

Annual Oncology Symposium

Friday, May 6

Fifth Annual Cerebrovascular Symposium: New Therapeutics for Today’s Patient

Thursday and Friday, May 12-13

Highlights in Cardiovascular Therapies: A Contemporary Course for Cardiac and Vascular Specialists

Friday, May 20

New Frontiers in Epilepsy

Thursday and Friday, June 9-10

Management of Hospitalized Neurological and Neurosurgical Patients

Friday, June 17

An Intensive Update in Neurology: A Practical Approach

Thursday and Friday, September 22-23

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Swedish Medical Center

Founded in 1910, Swedish Medical Center is the largest, most comprehensive, nonprofit health-care provider in the Seattle area. Based in Seattle, Swedish comprises five medical facility campuses (Ballard, Cherry Hill, Edmonds, First Hill and Issaquah), Swedish Visiting Nurse Services and Swedish Physicians — a network of 15 primary-care clinics. In addition to general medical and surgical care, Swedish is known as a regional referral center, providing specialized treatment in areas such as cardiac care, oncology, orthopedics, high-risk obstetrics, neurological care, pediatrics, organ transplantation and clinical research. For more information, visit www.swedish.org or call 800-SWEDISH (800-793-3474).

Ballard

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Cherry Hill

500 17th Ave.
Seattle, WA 98122-5711
206-320-2000

Edmonds

21601 76th Ave. W.
Edmonds, WA 98026
425-640-4000

First Hill

747 Broadway
Seattle, WA 98122-4307
206-386-6000

Issaquah

2005 N.W. Sammamish Rd.
Issaquah, WA 98027-5364
425-394-0600

Swedish Visiting Nurse Services

6100 219th St. S.W., Ste. 400
Mountlake Terrace, WA 98043
425-778-2400

Swedish Physician Division

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Seattle, WA 98101-1169
206-320-2700

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Swedish Physician Recruiter

206-320-5962 (office)

206-327-2790 (cell)

mike.waters@swedish.org

Swedish Medical Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.