Skin Lesions: lumps and bumps
(dermoid cyst, epidermal cyst, pilomatrixoma, sebaceous cyst)

Patient and family information, brought to you by the Education Committee of APSA

Overview - "What is it?"

The term "cyst" generally means an abnormal ball or collection of fluid surrounded by a thin wall of tissue. Children can get small cysts in the skin or in the fatty tissue under the skin. Some types of cysts may be present at birth, and others may develop in childhood. Different names may be applied to these cysts depending on what type of tissue is causing the cyst to develop. Cysts are generally benign (not cancer).

Many kinds of skin cysts are very common in babies and children.

A **dermoid cyst** is congenital (present at birth) because it is formed during fetal development. These are most commonly seen in the head and neck area, such as the scalp, eyebrow and nose, but can be found in other places in the body as well. This type of cyst is filled with fluid and hair from skin structures within the cyst.

Epidermal cysts may be congenital as well but can also form spontaneously from an abnormal hair follicle or result from trauma. They are found typically on the scalp, face, neck, and trunk.

Pilomatrixoma is a small benign solid tumor (i.e. not a cyst) of the skin that develops commonly during childhood. It results from abnormal calcium deposits in a hair follicle.

Signs and Symptoms - "What symptoms will my child have?"

Early symptoms: Cysts are usually found by a child or parents as a non-painful and non-tender bump on or under the skin (1-2cm). A cyst feels soft, while a pilomatrixoma is very hard. The skin itself over the bump is usually normal, but it may have a slight red or blue discoloration and sometimes a small skin dimple or sinus tract (hole connecting with the cyst).

Later signs/symptoms: Many cysts may slowly get bigger over time and may cause symptoms of pain as they enlarge. The most serious problem that can happen with these cysts is infection. Infection is suspected when there is redness, increasing pain and swelling, and possibly fevers and pus draining out of the skin over the cyst.

Diagnosis - "What tests are done to find out what my child has?"

Physical examination by a physician.

Blood tests are usually not necessary.

Ultrasound may be helpful if it is unclear if the skin bump is a simple cyst or something deeper or more complicated, but this is often not necessary.

CT scan or MRI may be needed to look for dermoid cysts on the scalp that may have eroded into or through the bone of the skull.

Treatment - "What will be done to make my child better?"

Treatment with medicine will not make any of these skin lesions go away. If a cyst becomes infected, treatment with antibiotics may be needed before it can be safely removed with surgery.

Surgery to remove these benign skin lesions is recommended, even if there are no symptoms, because they tend to enlarge and can become infected. Surgery to remove a cyst is quite straightforward if it has not been infected. A cyst that has already been infected can and should be removed, but the surgery may be more difficult, and the risks are slightly higher.

Preoperative care: It is important to keep your child as healthy as possible before surgery. If infection is present, antibiotics may be administered before surgery is completed. It is also important to keep the area as clean as possible, you may be instructed to bathe your child the day prior to or the day of surgery to decrease the skin contamination.

Postoperative care consists of pain management and wound care. Most children can go home from the hospital that same day.

Risks/Benefits: The primary benefit of removing the cyst is eliminating the risks of infection or pain symptoms as the bump becomes bigger. Depending on the location of the cyst; there may also be cosmetic benefits. While all surgery has some risks, this is generally considered low risk. There is a small risk of infection or bleeding in the wound within a few days after the surgery. The cyst may recur (form again or come back) if it is not completely removed, which is a higher risk if it has been infected or had ruptured.

Informed consent: A consent form is a legal document that states the tests, treatments or procedures that your child may need and the doctor or practitioner that will perform them. Before surgery, your doctor should tell you what the operation is, the goal of the surgery and other possible treatment options that are available. Your doctor should explain the risks and benefits of the surgery. You give your permission when you sign the consent form. You can have someone sign this form for you if you are not able to sign it. You have the right to understand your child's medical care in words you know. Before you sign the consent form, make sure all your questions are answered. It is important to know that during surgery, there

are things that can happen that your doctor may have not predicted before going in. He or she will explain these to you after the surgery.

Home Care - "What do I need to do once my child goes home?"

Diet: Your child may resume a normal diet after surgery. You should encourage your child to have plenty of fluids, fruits, and vegetables to prevent constipation.

Activity: Your child may be naturally less active after the surgery due to pain for 1-2 days but may resume any activity that they wish as their pain resolves.

Wound care: Surgical incisions should be kept clean and dry for about 2-3 days after surgery. Thereafter, the child may shower, but soaking the area of the wound should be avoided for about a week. If stitches were used, these are usually absorbable and do not require removal. Your surgeon will give you specific guidance regarding wound care that applies to your child specifically.

Medicines: Children are sent home with medicines to control their pain. These may include acetaminophen (Tylenol®), ibuprofen (Motrin® or Advil®), or sometimes even oral narcotics. Your doctor will decide which of these medicines are needed. If narcotics are prescribed, it is advisable for the child take a stool softener (docusate, Miralax®) to prevent constipation since narcotics can have this side effect. Antibiotics are not needed unless infection was suspected at the time of surgery.

What to call the doctor for: Call your doctor for signs of infection in the incision including increasing pain, redness, swelling, fever and fluid or pus draining out of the wound.

Follow-up care: Your child should follow up with his or her surgeon 2-3 weeks after surgery to ensure proper postoperative healing. Follow-up can sometimes be arranged with your child's primary care doctor or even with a phone call depending on what your surgeon deems appropriate.

Long Term Outcomes - "Are there future conditions to worry about?"

After surgical treatment, the long-term prognosis is excellent. Your child should be expected to grow and develop normally after the surgery.

Once removed, the only long-term risk is recurrence if the cyst is not completely removed and forms again, which is rare.

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