Children’s Services

Thyroglossal Duct Cyst – information for parents and carers

Introduction

This information leaflet has been written to provide additional information for you on thyroglossal duct cysts in children and related surgery. It includes information on diagnosis, pre-operative and post-operative care. If you have further questions, please do not hesitate to contact the team. (Phone numbers are available at the end of this leaflet).

What is a thyroglossal duct cyst?

A thyroglossal duct cyst is seen as a lump or mass, usually in the neck, which develops from cells during the development of the thyroid gland in the unborn baby. Although the cyst may be seen at birth, it is often not observed until the age of two to ten years of age. Rarely, the cysts form in the tongue, tonsils or on the floor of the mouth.

What causes a thyroglossal cyst?

During pregnancy, the thyroid gland of the developing baby initially forms at the base of the tongue then moves downwards, through the tongue and neck muscles, towards the base of the neck. The thyroglossal duct normally closes when the thyroid gland reaches its position in the base of the neck. If the duct remains open, a pocket called a cyst forms. The cyst can fill with fluid or mucus and may enlarge or become infected from the bacteria in the mouth.

Symptoms of a thyroglossal cyst

- A round lump or mass at the front of the neck, normally in the centre.
- Tenderness, inflammation and swelling of the mass if the cyst is infected.
- Increased difficulty with swallowing or breathing.
- A small opening on the skin, close to the mass, which leaks fluid or mucus.

How is a thyroglossal cyst diagnosed and what investigations are needed?

When a thyroglossal cyst is suspected, your child will be seen in the children’s outpatient department by a member of the paediatric surgery team. You will be asked questions about what you have observed and about any underlying conditions your child has. The doctor will examine your child, feel your child’s neck and the mass, and may ask your child to move their tongue or swallow whilst being examined; this helps to assess what the cyst connects to and if it contains part of the thyroid gland.
In addition to the physical examination, the doctor may arrange further tests which most commonly include blood tests and/or ultrasound scan. Rarely, a CT scan or MRI scan is arranged.

- **Blood tests**: These are to assess whether the thyroid is functioning normally.
- **Ultrasound scan**: ultrasound uses high frequency sound waves to produce an image.
- **CT scan (Computed Tomography)**: CT scanning uses x-rays to produce cross-sectional images (images taken from different angles).
- **MRI (Magnetic Resonance Imaging)**: MRI uses magnetic fields and radio waves to produce detailed images of the inside of the body.

**How is a thyroglossal cyst treated?**

The treatment your child will receive will depend on how severe the condition is, as well as your child's age and symptoms. Treatment may include the following:

- **Antibiotics**: It is common for cysts to become infected; the antibiotics treat the infection.

- **Surgical excision**: Removing the cyst and some of the surrounding tissue is known as a sistrunk procedure. Surgery is recommended to prevent complications such as infection, enlargement or formation of a fistula (that is, development of a connection between two hollow spaces). It also prevents rarer complications such as breathing or swallowing concerns or recurrent infection. Once infection has occurred, treatment can be more difficult so, attempts are made to operate before infection occurs.

**Before admission to hospital**

**Preoperative assessment**

You will be asked to complete a ‘health screening questionnaire’ when your child is added to the waiting list. This will be completed immediately after your appointment if your child was seen in one of our clinics at Addenbrookes or, over the telephone if your child was reviewed in one of our outlying clinics.

Depending on whether your child has any underlying conditions he/she may need to be seen by an anaesthetist and may need some blood tests.

**Purchasing suitable painkillers**

It is important that you purchase some children’s pain killers such as Paracetamol (e.g. Calpol) and Ibuprofen before admission to hospital so that you have these available at home after discharge.
**If your child becomes unwell**
If your child has a cold, cough or illness such as chicken pox, the operation will need to be postponed to avoid complications. Please telephone us. (The telephone number is at the end of this leaflet).

**Starvation plan**
Your child will not be able to eat and drink before the operation. Specific advice about this will be given in the letter of confirmation and by telephone on the day before surgery.

**What happens when my child is admitted to hospital?**
You will be asked to bring your child to one of our children’s wards on the day of surgery. When you arrive you will be seen by the nursing staff plus a consultant and an anaesthetist (if you have not already been seen by these persons at the pre-operative assessment clinic).

A parent will be able to accompany your child to the anaesthetic room to go to sleep for the operation and also be present in the recovery area when they wake.

**What happens during the operation?**
The operation used to remove the cyst (the sistrunk procedure) is always carried out under general anaesthetic.

During the operation, the cyst is removed along with the thyroglossal tract and part of the hyoid bone to help prevent reoccurrence. The removed cyst and its surrounding tissue are routinely sent to the histology laboratory to be examined; receiving the results from this can take a few weeks. Laboratory examination is undertaken to rule out any malignancy in the cyst, although this is extremely rare in children.

At the end of the operation, a small tube called a drain is left in place which removes any fluid that may collect in the wound. The drain is removed on the ward usually one to three days later when drainage has ceased.

**What happens after the operation?**
Your child will be monitored in our children’s recovery area for a few hours; you will be called to be with your child as soon as they are awake. Your child will then be transferred to the children’s ward.

Your child will be able to start drinking and eating again as soon as they are fully awake. Analgesia (painkillers) will be given and your child’s wound checked by the nursing staff on the ward.

If your child needs to stay in hospital overnight, a parent is able to stay too. A bed is provided by the child’s bed and breakfast is provided on the ward for the resident parent.
Before your child goes home, arrangements will be made for removal of the drain.

**What are the complications/risks?**

The main complications and risks are:

- post-operative bleeding
- infection in the wound site
- injury to the surrounding nerves and larynx (rare)
- recurrence

**Discharge advice - how do I look after my child at home?**

**Pain**

Simple painkillers such as Paracetamol and Ibuprofen are usually sufficient to ensure children are comfortable after surgery. Please ensure you follow advice on the bottle regarding doses.

**Swelling**

It is normal for the incision site to swell in the first 24 - 48 hours. This will normally resolve after a couple of weeks. If the site continues to swell after 48 hours, contact the paediatric surgery team for further advice.

**Numbness**

Post-operatively, it is normal to have some numbness around the surgical incision site; this should disappear after a couple of weeks.

**Wound site**

The wound is normally closed with dispersible sutures; these can take several weeks to dissolve. Steri strips (sticky stitches) may be applied over the wound. It is important to keep the wound dry for five days. A small amount of discharge may be noted for a few days but should spontaneously settle. If discharge continues, it is important to contact the paediatric surgery team as this may be a sign of infection. If your child is discharged with a drain in place and it falls out before the planned removal, you should contact the paediatric surgery team.

**Calling for advice**

Please contact the paediatric surgery team in the event of:

- bleeding or leakage of fluid from the surgical incision site
- the drain has fallen out
- difficulty in swallowing or breathing
- increasing pain
- swelling in the neck or around the surgical wound
- fever
- nausea and vomiting
- dizziness or headache
Follow-up

Drain removal: If your child is discharged with a drain in place, an appointment for this to be removed by a member of the paediatric surgery team will be arranged with you prior to discharge.

Clinic follow-up: Your child will be reviewed in the outpatient clinic by the paediatric surgery team approximately three months after surgery. The appointment will be sent via a letter. It is important that you contact us if you are unable to attend the appointment so another appointment can be arranged for your child and also so that the appointment time you are unable to attend can be allocated to another patient.

Chaperoning:

During your child’s hospital visits, your child will need to be examined to help diagnose and to plan care. Examination may take place before, during and after treatment, and is performed by trained members of staff and will always be explained to you beforehand. A chaperone is a separate member of staff who is present during the examination. The role of the chaperone is to provide practical assistance with the examination and to provide support to the child, family member/carer and to the person examining.

Contacts/Further information

Your nurse specialist (Monday to Friday, 08:00 to 18:00): 01223 586 973

The ward your child was on ............................

We are a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:

If you would like this information in another language or audio, please contact Interpreting services on telephone: 01223 348043, or email: interpreting@addenbrookes.nhs.uk For Large Print information please contact the patient information team: patient.info@addenbrookes.nhs.uk

Document history

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