Neuroblastoma

What is a Neuroblastoma?

Neuroblastoma is a tumour that begins in nerve tissues in the neck, chest, abdomen, or pelvis. About 50% of neuroblastomas start in the tissues of the adrenal glands located just above the kidneys.

Often this tumour has spread before it is diagnosed. The common sites are the lymph nodes, liver, bones, and bone marrow.

Neuroblastoma occurs in early childhood with 2/3 of the children younger than 5 years of age when they are diagnosed. Some neuroblastomas in infants can spontaneously regress and your doctor will discuss this with you.

What causes a neuroblastoma?

As with most cancers, the cause of neuroblastoma is unknown.

What are the signs and symptoms?

The symptoms will vary depending on where the tumour is located. The most common symptoms are as a result of pressure by the tumour or bone pain from the cancer that has spread into the bone.

- Protruding eye and dark circles around the eye caused by tumour spread to the area behind the eye.
- Paralysis can occur from pressure on the spinal cord.
- Unwell, lethargic, pale, weight loss, skin lumps
- Abdominal pain
- Bone pain

What test will be performed?

These tests will include:

- A physical examination and taking a complete history of the illness.
- Blood and urine tests
- X-rays
- Scan – bone, CT, MRI, MIBG

- Bone marrow test
- Biopsy

These tests are explained in the procedure section of the folder.

What is the treatment?

The treatment will depend on the extent and the nature of the tumour. Once a neuroblastoma is found, more tests will be done to find out if it has spread to surrounding tissues or other parts of the body. This is called staging.

Stage 1: Tumour confined to the organ or structure of origin.

Stage 2: Tumour extending beyond the organ/ structure of origin, involving the lymph nodes on the same side of the tumour.

Stage3: Tumour extends beyond the midline, involves the lymph nodes on both side of the body.

Stage 4: Metastatic disease involving other parts of the body, especially the bones or bone marrow.

Stage 4S: In a child younger than 12months when there is evidence of liver, lymph node or marrow involvement associated with a primary tumour which is often quite small.

Types of treatment

- Chemotherapy (refer to the treatment section for further information on chemotherapy) – may be given to shrink the tumour prior to surgery or used after surgery. Your doctor will discuss with you the most appropriate type of chemotherapy depending on your child's individual requirements.
- Surgery – a biopsy will be done to confirm the diagnosis. Then surgery is used to try and remove as much of the tumour as possible.
- Radiotherapy may be used and your doctor will discuss this with you. (Please ask for the radiotherapy section if you require more information).
- Bone Marrow transplant – may be required as part of the treatment, your doctor will discuss this with you if required. If your child requires a bone marrow transplant then you will be given further information.

What is the prognosis?

Your child's chance of recovery will depend on the nature and extent of the disease and your child's age. Your doctor will discuss all these factors with you.

Follow up care

After treatment has finished your child will be seen at regular intervals and at these appointments your child will have various tests to monitor progress.

How do I find further information?

Your child's doctor is most familiar with your child, their condition and treatment, please do not hesitate to ask any questions.

For further information see section 'Sources of more information on cancer 'or ask any member of the team.

Bibliography

Royal Children's Hospital Department of Clinical Haematology – Information for Families.

www.acor.org

www.cancerbacup.org.uk