TINEA CAPITIS (or SCALP RINGWORM)

What are the aims of this leaflet?

This leaflet has been written to help you understand more about tinea capitis. It tells you what it is, what causes it, how it can be treated, and where you can find out more about it.

What is tinea capitis?

Tinea capitis or ‘scalp ringworm’ is an infection of the scalp hair and the surrounding skin with a fungus. It is not cause by a worm, despite its name. It is called “ringworm” as it can cause a ring-shaped, scaly, red rash. Fungi are microscopic organisms that can live on the hair, nails, and outer skin layer.

It occurs most commonly in children; however, it can also occur in adults.

What causes tinea capitis?

Tinea capitis is caused by an infection with a type of fungus called a dermatophyte. Dermatophytes are found in humans, animals and in the environment.

Is tinea capitis contagious?

Tinea capitis is contagious. The infection is spread through close contact with an infected person, or by sharing combs, hairbrushes, hats, clothing, towels, beds and other furniture with someone who is infected. It's also possible to catch ringworm from infected animals such as dogs, cats, horses or farm animals. The fungus can live for long periods of time in the environment and therefore infection can occur many months later.

What are the symptoms of tinea capitis?

The symptoms include itching, redness and dryness of the scalp. Sometimes bald patches can occur as infected hairs are brittle and break easily.

In more severe cases there can be pustules (white/yellow headed spots), yellow crusts and matted hair and, very rarely, a painful boggy swelling filled with pus and overlying hair loss called a kerion. In these cases, patients may have a fever or swollen, painful glands in the neck.

Occasionally the body reacts to the fungus by causing an itchy rash at a site other than the scalp, such as the ear or the palms and soles. This is called an 'id reaction' and can appear when treatment is started. This "id reaction" can be treated with steroid creams.

What other conditions does tinea capitis look like?

The appearance of tinea captitis can vary and can resemble conditions such as dandruff, alopecia, eczema or psoriasis of the scalp.

How is tinea capitis diagnosed?

Tinea capitis is suspected if there is a combination of a scaly scalp and hair loss, especially in children.

The diagnosis can be confirmed by taking skin scales from the scalp or plucking hairs from the affected areas and sending them for testing in a laboratory. The samples are looked at under the microscope and cultured to confirm that a fungal infection is the cause. Fungus grows slowly therefore the culture results can take up to 6 weeks.

Can tinea capitis be cured?

Yes. It can be cured if treated adequately as it is an infection. However, in order to prevent re-infection, other family members and close contacts may need to be checked to make sure they are not carrying the infection.

How can tinea capitis be treated?

Tinea capitis needs to be treated with oral antifungal medication (which can only be obtained on prescription) AND a medicated antifungal shampoo (purchased over the counter from a pharmacy) to reduce spread of the fungus to other people.

It may be reasonable to start oral antifungal treatment immediately if your doctor has a strong suspicion that this is tinea capitis. However, the doctor may wish to wait for the test results to know the exact type of fungus causing the infection. This enables the correct antifungal medication to be given.
If you are started on oral treatment immediately and the test results then show this initial medication is not the most appropriate for the type of fungus you have, then your treatment can be changed.

The oral antifungal treatments used include:

- **Griseofulvin**. This is the only licensed oral antifungal for children. A 6 to 8 week course is needed. The tablets can be crushed, and mixed with a little water, if your children are unable to swallow them whole.
- **Terbinafine**. This is not licensed in children. This is because the manufacturer of this medication has not applied for a license for it to be used in children and has not conducted clinical trials to check its safety and effectiveness in children. It is licensed in adults. It is very effective and so is also very commonly used "off license" in children It is usually the first choice of treatment as it is accepted as the best treatment. A 2 to 4-week course is needed.
- Other antifungal treatments used include itraconazole and fluconazole

These treatments do not usually cause any problems. Side effects can occasionally occur. These include diarrhoea, abdominal pain, nausea, rash, and headache.

If you are a woman of childbearing age you should not become pregnant during and for one month after treatment with griseofulvin. Effective contraception is required during treatment. Men treated with griseofulvin should also use contraception during, and for six months after, treatment, as it can damage sperm which could possibly lead to abnormalities in the foetus

You should also buy an antifungal shampoo, such as 2% ketoconazole or 1% selenium sulphide. Use this twice weekly, to help stop the spread and recurrence of your infection.

Further samples of hair may be sent for testing after you have finished treatment to ensure it has worked. If this repeat test still shows fungus, then you will need a further course of medication.

What if I don't have treatment? What are the complications?

If the infection is not treated it could cause permanent scarring and hair loss. The inflammation of the skin caused by a fungal infection can also lead on to a 'secondary' bacterial skin infection.

How do I prevent further infection and stop spread of infection?

Inform your school teacher, parents of classmates and other playmates so children may be examined and treated if necessary. If more than two children in a school or nursery class are infected, the rest of the class may need to be tested (after parental consent). Children should be allowed to attend school or nursery once treatment with an oral antifungal medication and a medicated shampoo has been started.

In order to prevent further infection, other family members and pets should be examined by a doctor or vet respectively and treated with oral antifungal medication if infection is present. Sometimes it is best for the whole family to be treated with a medicated antifungal shampoo twice weekly for four weeks, whether or not fungal infection is proven.

Self care (What can I do?)

Avoid sharing combs, hairbrushes, hats, towels, pillowcases, or helmets with other people. Fungus can live in combs, hairbrushes, and hair accessories, so clean them with simple bleach or purchase new ones. Do not visit the hairdressers or barbers until the infection is clear. Wash all bedding, towels and hats at 60˚C.

Where can I get more information about tinea capitis?

References:

British Association of Dermatologists' guidelines for the management of tinea capitis 2014

http://dermnetnz.org/fungal/tinea-capitis.html

http://www.medicines.org.uk/emc/medicine/1290

Web links to further information:

https://patient.info/health/fungal-scalp-infection-scalp-ringworm

http://www.nhs.uk/Conditions/Ringworm/Pages/Introduction.aspx
http://www.emedicinehealth.com/ringworm_on_scalp/article_em.htm
http://dermnetnz.org/fungal/tinea-capitis.html

For details of source materials used please contact the Clinical Standards Unit (clinicalstandards@bad.org.uk).

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel

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