

Trachoma (chlamydial conjunctivitis)

What is Trachoma

Trachoma is a preventable infectious eye disease caused by repeated infections with eye strains of the bacteria *Chlamydia trachomatis*. It causes painful blindness from in-turned lashes in older people who have had severe active trachoma usually in childhood.

How it is spread

Trachoma occurs in areas with overcrowded housing where personal and community hygiene are difficult to maintain. The *Chlamydia trachomatis* bacterium is easily spread through infected eye and nose secretions. These secretions are passed back and forth between young children during close contact (direct and indirect) such as playing and sharing the same bedding. Flies may also spread the bacterium.

Children are the main reservoir of infection. Unwashed faces are the most important risk factor in the transmission of trachoma.

Symptoms

It is important to note that active trachoma in some children causes no symptoms. However, most children with active trachoma will have red, sore, sticky eyes and nasal discharge at some point, although these symptoms may also be due to other causes of conjunctivitis. Trachoma can be found in children with clean faces in environments where trachoma is occurring.

Follicles and inflammation under the upper eyelids are the hallmarks of active trachoma. Diagnosis is clinical, requiring 5 or more follicles 0.5mm or larger on the upper tarsal plate. These are graded using the WHO simplified grading system, as having 'active trachoma' or TF (Trachomatous inflammation- Follicular). As trachoma progresses, scarring develops under the eyelids. The eyelashes turn in and rub on the cornea. This abnormal condition is called trichiasis. This may be painful and will eventually cause corneal scarring, followed by visual loss and then blindness.

Who is at risk

Aboriginal people in remote Australia are most at risk of acquiring trachoma. Young children, especially those with limited routine daily bathing or face washing capacity are at the highest risk of infection, however trachoma can be transmitted to and found in children with clean faces. Repeated episodes of infection are most likely to occur in childhood and multiple episodes (150 or so) are needed to develop severe scarring, trichiasis and blindness. Active trachoma (TF and TI) is usually seen in young children and adolescents. The highest rates of disease are found in children aged 3-8 years. Teenagers and adults have the scarring stage of trachoma (TS).

Australia is the only developed country with blinding trachoma. Trachoma remains an importance cause of blindness in Aboriginal adults.

Infectious period

After a single inoculum infection will resolve after a month or two. With repeated episodes of infection children may remain infectious for years. Adults and those without clinical signs may still have episodes of infection and be infectious.

Treatment

Azithromycin is the recommended treatment for all people diagnosed with trachoma as well as all their household contacts. A contact is anyone who is living and/or sleeping in the same house as a person with trachoma. If the person lives or sleeps in multiple households, then all members of each household are regarded as contacts.

If there is a high rate of trachoma in a community, then all Aboriginal members of the community living in household with children <15years old should be treated. Indigenous adults over 40 years of age from communities in which trachoma is endemic should be examined for trichiasis. Additionally, adults who complain of a sore eye need to be examined for trichiasis. Health services need to ensure that a process is in place for timely surgical referral and treatment of people with trichiasis.

The World Health Organisation and the Communicable Disease Network Australia recommend the **SAFE** strategy:

Surgery – surgical correction for trichiasis

Antibiotics - azithromycin for cases of active trachoma and their contacts (that is all household members)

Facial cleanliness – promote clean faces to reduce spread of infection

Environmental improvements – Improve overcrowding, water and sanitation facilities. It is especially important to address barriers to face washing.

These 4 actions are aimed at eliminating trachoma by reducing the risk and frequency of transmission and preventing trichiasis with surgery.

Prevention

The promotion of clean faces in children along with environmental improvements to reduce overcrowding and to support good hygiene practices are the best ways to control trachoma.

Contact

For more information contact the [Centre for Disease Control or the Northern Territory Trachoma Program](#).

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