Tackling trachoma in Australia

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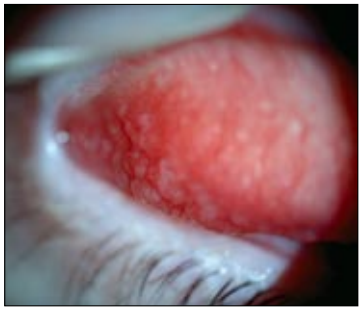
Trachoma is a leading cause of preventable blindness world wide. The initiating event is infection of the conjunctiva by Chlamydia trachomatis sero types A, B, Ba and C. Chlamydia is spread by the fly vector or direct contact with infected material (e.g. contaminated fingers, handkerchiefs). Infection does not provide immunity against re-infection. The highest load of infection and the most severe disease is seen in the youngest children, that is, those younger than four. They also have the poorest facial hygiene and are at maximum risk of re-infection. One may consider trachoma to be a chronic, delayed hypersensitivity reaction to conjunctival intracellular Chlamydia, with subsequent fibrosis. Only the occasional exposure to antigen may be enough to sustain the ongoing clinical disease.

Active inflammatory trachoma

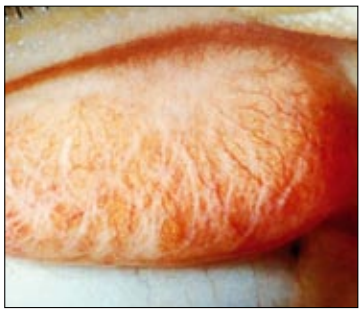
This is diagnosed most often in children and is recognised by the presence of follicles on eversion of the upper lid (round swellings, paler than the surrounding conjunctiva). The tarsal conjunctiva may also appear inflamed, red, rough and thickened. This may be followed by the cicitricial (or scarring) phase in those with persistent infection because they are untreated or re-infected.



Inflammatory trachoma

Cicitricial trachoma

This is recognised by the presence of fine white lines, bands or sheets on eversion of the upper lid. The scarring process may ultimately result in trichiasis (i.e. lashes abrading the cornea), corneal scarring and opacity



Cicitricial trachoma

Australia is the only developed country listed by the WHO as having endemic blinding trachoma. Sustained political will and commitment is needed to eliminate this blinding disease in Australia.

In 2006 the Australian Government published national guidelines for the public health management of trachoma. These are along the lines of WHO recommendations regarding implementation of the SAFE strategy and they include the distribution of azithromycin.

The components of the SAFE strategy are:

- Surgery. Regular screening for trichiasis amongst Aboriginal people, older than 45, in endemic areas. Trichiasis requires surgery and yearly follow up. Surgery is aimed at eliminating lashes that abrade the cornea (trichiasis) and secondary corneal scarring.
- Antibiotics. The minimum target group is indigenous children aged 5-9 living in communities where trachoma is endemic. Annual screening is recommended. Active trachoma is treated with a single dose of azithromycin (20mg/kg). If the prevalence is <10% in the community, then all household contacts with positive cases should be treated. If the community prevalence is >10%, and there is no obvious clustering, then all children aged 6 months to 14 years and all household contacts should be treated within two weeks of screening.
- Facial cleanliness reduces exposure to flies in those at risk.
- Environmental health is aimed at reducing fly populations. Treating individuals and those at risk reduces exposure of flies to Chlamydia and thus spread.

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