

# TB AND SEXUALLY TRANSMITTED DISEASES



## KAREN COHEN

*MB ChB, MCFP (SA), Dip  
Obst (SA)*

### Clinical Co-ordinator

*Antiretroviral Programme  
Directorate: HIV/AIDS and  
TB*

*Provincial Government  
of the Western Cape*

### Honorary Lecturer

*Division of Pharmacology  
University of Cape Town*

*Karen Cohen completed her medical training at the University of Cape Town, and trained and worked as a family physician at the Community Health Centre in Gugulethu, where she started an HIV clinic in 1998. She completed a registrar programme in Clinical Pharmacology at the University of Cape Town in 2004.*

*'I lie awake troubled by a hacking, exhausting cough and praying for sleep or morning, from the bottom of my little shaken body. For 14 years I have not had a day's real health; I have written in bed and written out of it, written in hemorrhages, written in sickness, written torn by coughing, written when my head swam for weakness'*

*Robert Louis Stevenson (1850-1894), on his experience of tuberculosis.<sup>1</sup>*

Tuberculosis (TB) has afflicted humanity throughout our history. There was no effective medical treatment for the disease until the discovery of streptomycin in 1944. Streptomycin monotherapy resulted in resistance, and led to the awareness of the need for combination therapy. Isoniazid was shown to be effective in TB treatment in 1951, ethambutol was produced in 1962, and the rifamycins were developed in the mid-1960s. With the advent of effective anti-tuberculous chemotherapy it was hoped that TB might be eradicated.<sup>1</sup> In fact, the reverse has occurred, with a global increase in TB incidence and an increasing problem of multidrug resistance.

The World Health Organization has declared tuberculosis a Global Emergency.<sup>2</sup> In South Africa our health care system must contend with the challenge of two massive, overlapping infectious disease epidemics. It is estimated that over 4 million South Africans are infected with HIV, and the TB incidence increases annually despite the efforts of the TB control programme. This rising incidence is fuelled by the increased susceptibility to TB in those who are HIV-infected.

TB is the leading cause of illness, suffering and death in HIV-infected South Africans. In Khayelitsha in the Western Cape, the TB incidence in 2003 was a staggering 1 122 per 100 000, i.e. more than 1% of the population in that area are diagnosed with TB per annum.<sup>3</sup> High TB incidence rates, particularly in areas of high HIV prevalence, pose a number of challenges to our health care system and to primary health care providers.

There are often significant delays between the first onset of TB symptoms and the patient being commenced on TB treatment within our health care system. A study of patients admitted with suspected TB at Jooste Hospital in Manenberg, Cape Town, a secondary hospital in the heart of the Western Cape's area of highest HIV prevalence, found a mean delay between onset of clinical symptoms and admission to hospital of 60 days.<sup>4</sup> The bulk of this delay (42 days) was 'provider delay'— failure to diagnose TB and institute appropriate treatment despite repeated visits to primary health care providers in both the public and private sectors. This resulted in patients becoming ill enough to require hospital admission. Two-thirds of this cohort of patients were bed-bound before admission, and the mortality rate of recruited patients was more than 5%. The delay in diagnosis of TB in a symptomatic patient is of critical importance, as it may result in increased TB transmission, unnecessary hospital admission and increased TB morbidity and mortality. In this context, it becomes imperative that all health care providers are vigilant for symptoms and signs of TB in their patients, and prompt in investigating suspected TB appropriately, as discussed by Wilson and Maartens.

In the context of HIV infection, TB may present in atypical ways, and sputum smears alone cannot be relied on to confirm or exclude a diagnosis of TB. While prompt detection and success-

ful treatment of those with sputum smear-positive TB (who pose the greatest infection risk to others) remains critical to the success of our national TB control programme, the possibility of smear-negative tuberculosis in a patient with symptoms suggesting TB should always be considered, particularly in patients known to be HIV-infected.

In many public sector, primary care TB clinics the majority of clients are HIV-infected. Historically, programmes for TB, HIV and sexually transmitted infection control have been run as separate, vertical programmes.<sup>3</sup> In the current setting, this makes little sense. A strategy of integrating these services, already embarked upon in Cape Town, as outlined by De Villiers and Toms, is essential. Patients presenting with sexually transmitted infections require effective syndromic management, as described by Alini, as well as the offer of HIV testing. All patients who test positive for HIV should be

screened for TB symptoms. A diagnosis of TB in a person of unknown HIV status should always be followed by the offer of information about HIV infection and the possibility of an HIV test, if desired, after pretest counselling. As emphasised by De Villiers and Toms, continuing HIV care needs to be integrated into the package of care available to clients attending primary care facilities, so that those diagnosed with HIV infection are given ongoing care and support, opportunistic infection prophylaxis when appropriate, and referral for antiretroviral therapy when indicated.

Antiretroviral therapy is protective against active TB, reducing the incidence of TB by more than 80% in a study in Cape Town, South Africa.<sup>5</sup> However, only a fraction of HIV-infected South Africans who require antiretroviral therapy are currently receiving it. In addition, because of the high background incidence of TB, a sub-

stantial number of patients will still present with active TB while on antiretroviral therapy. This presents us with a number of clinical and diagnostic challenges, including drug interactions, as outlined by Swart and Harris, and diagnosing and treating immune reconstitution illness, discussed by Wilson and Maartens. Additive side-effects and increased pill burden are obstacles to good compliance, and such patients require additional adherence support.

Knowledge of the diverse presentations of TB, clinical and laboratory diagnosis and treatment in accordance with the protocols of the national TB programme, is essential for all health care providers in South Africa.

*References available on request.*

## SINGLE SUTURE

### INFANT CRYING AND ABUSE

A study on 3 259 infants between 1 and 6 months in the Netherlands showed that 5.6% of all parents had smothered, slapped or shaken their infants at least once because of crying. Researchers found several risk factors for these actions, including the parent's perception that the infant's crying was excessive. You might expect that prolonged crying would precipitate the worst actions. But it appears that the length of time that a child cries is not the most critical factor. For example, a father trying to watch a football game beat his baby immediately the child woke up. In another example, a 6-week baby woke up on the first day that the father was looking after the child alone; within 30 minutes of the mother leaving, the father had shaken and slammed the child to death. In yet another example a mother left her healthy child with its usual carer; within 5 minutes the carer shook and threw the child against a wall, killing her. What comes out of the research is that it is not the child's behaviour itself that is the factor that provokes abuse, but the caregiver's perception of the child's behaviour. Parents need to understand that it is normal for infants to cry and crying is not something that needs correction.

*Lancet* 2004; **364**: 1295-1296.