



## *Helicobacter pylori*

The conventional view that no bacterium could live in the stomach because of the high concentration of acid there was overturned some 25 years ago, when Drs Barry Marshall and Robin Warren of Australia first discovered *Helicobacter pylori* in the stomachs of patients with gastritis and stomach ulcers. For rewriting what causes gastritis and gastric ulcers they received the Nobel Prize for Medicine and Physiology in 2005. *H. pylori* is one of the most frequent chronic bacterial infections, affecting more than 50% of the world's population, and is most prevalent in developing countries. It is a major cause of duodenal and gastric ulcers, non-ulcer dyspepsia, gastro-oesophageal reflux disease and adenocarcinoma of the distal stomach. Tanih *et al.*<sup>1</sup> and Kimang'a and colleagues<sup>2</sup> studied aspects of *H. pylori* among South Africans and Kenyans, respectively.

Antibiotic resistance to *H. pylori* is recognised as a major cause of treatment failure. The high prevalence of resistance to metronidazole in developing countries has been linked to the frequent use of metronidazole derivatives for the treatment of protozoal infections and gynaecological problems. Tanih and colleagues therefore studied the susceptibility and resistance patterns of 200 strains of *H. pylori* obtained from gastric biopsies of patients attending Livingstone Hospital, Port Elizabeth. They found that multidrug resistance was common. This finding is of clinical significance and calls for continuous surveillance of antibiograms to guide empiric treatment. They advocate the inclusion of ciprofloxacin in the treatment of *H. pylori* in their study environment.

The prevalence of *H. pylori* infection was found to be high in patients with dyspepsia (71%) and asymptomatic controls (51%). Kimang'a and colleagues investigated the prevalence of *H. pylori* in dyspeptic patients, its relationship with gastric pathologies and associated antibiotic profiles, and compared two culture media. They found that the media described reduced the time required to culture and isolate bacteria and perform susceptibility testing. Despite the high prevalence of *H. pylori* infection, the associated pathology was low and did not parallel *H. pylori* prevalence in the community.

## Trichomoniasis in pregnancy and low birth weight or preterm birth

Preterm birth is an important cause of neonatal morbidity and mortality worldwide. Studies have suggested that bacterial infections of the placenta and fetal membranes may play a major role in preterm birth. Some studies have suggested that infection with *Trichomonas vaginalis* may increase the risk of preterm birth, and a prevalence of 17 - 42% has been reported among adults in eastern and southern Africa. Two studies have suggested that treatment of trichomoniasis with metronidazole in pregnancy is associated with an increased risk of preterm birth and low birth weight.

Elizabeth Stringer and colleagues performed a randomised trial to determine whether treatment of trichomoniasis increases the risk of prematurity.<sup>3</sup> Their study included 2 428 women-infant pairs from four sites in Africa of which 428 (18%) had trichomoniasis at enrolment. They found no differences in pregnancy outcomes among women diagnosed with trichomoniasis compared with women without trichomoniasis. As in other studies, women who received antibiotic treatment for trichomoniasis were more likely to have resolution of their trichomoniasis.

They conclude that neither trichomoniasis nor its treatment appears to influence the risk of preterm birth in pregnant women in sub-Saharan Africa.

## Did Julius Caesar have a brain tumour?

Julius Caesar (100 - 44 BC) was one of the outstanding leaders of antiquity.<sup>4</sup> Remembered for his military achievements, he was also a cultured person, a writer and historian, and an outstanding orator and statesman. Through his constitutional reforms he paved the way for the founding of the Roman Empire. He was tall, well built and fair. To his disappointment, he started turning bald early in life, and took to wearing a laurel wreath (originally acquired as an emblem of esteem) to hide the baldness. Caesar was married three times and had many mistresses, including the wives of friends and colleagues. In many military campaigns, including the Gallic wars and the invasion of Britain, he proved to be an outstanding general. His victories ensured widespread popularity but growing opposition from his enemies in the Senate. The Senate ordered him to resign and to report to Rome. Caesar refused, symbolically crossed the Rubicon River, and defeated Pompey as the senate's defender of Rome.

Returning to Rome Caesar received many honours including the post of dictator. On 15 March 44 BC (the Ides of March) he was assassinated during a meeting of the Senate.

Retief and Cilliers suggest that Julius Caesar's epilepsy, which first manifested after he turned 50, was secondary to underlying cranial pathology, possibly a benign brain tumour. Terminal erratic behaviour may have caused him to be negligent about his own safety.

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1. Tanih NE, Okeleye BL, Naidoo N, *et al.* Marked susceptibility of South African *Helicobacter pylori* strains to ciprofloxacin and amoxicillin: Clinical implications. *S Afr Med J* 2010; 100: 49-52.
2. Kimang'a AN, Revathi G, Kariuki S, Sayed S, Devani S. *Helicobacter pylori*: Prevalence and antibiotic susceptibility among Kenyans. *S Afr Med J* 2010; 100: 53-57.
3. Stringer E, Read JS, Hoffman I, Valentine M, Aboud S, Goldenberg RL. Treatment of trichomoniasis in pregnancy in sub-Saharan Africa does not appear to be associated with low birth weight or preterm birth. *S Afr Med J* 2010; 100: 58-64.
4. Retief FP, Cilliers JFG. Julius Caesar (100 - 44 BC) – did he have a brain tumour? *S Afr Med J* 2010; 100: 26-28.