

## REVIEW ARTICLE

### Current understanding of the relationship between periodontal and systemic diseases



Frontal intra-oral view of a patient with moderate to severe periodontitis presenting as loss of attachment (triangle), recession (arrow) and gingival edema (brace).

There has been a specific relationship suggested between periodontal disease (PD) and systemic health, with PD playing an etiological role in the development of cardiovascular disease, and diabetes mellitus, among others. In this review, we critically evaluate the current knowledge of the relation between PD and systemic diseases overall, and specifically with cardiovascular diseases. The best available evidence today suggests that the inflammatory reaction associated with PD may contribute toward systemic disease. It is critical that dentists and physicians are well informed of the potential general health impact of PD so that they are in a position to knowledgeably counsel patients.

see page 150

## ORIGINAL ARTICLES

### Angiotensin-converting enzyme gene insertion/deletion polymorphism in Saudi patients with rheumatic heart disease

Although angiotensin-converting enzyme (ACE) has been shown to be important in modulating immune responses, data on the association between ACE polymorphism and the risk of developing rheumatic heart disease (RHD) remain inconclusive. This led us to investigate the association between ACE insertion/deletion (I/D) and RHD susceptibility or severity in Saudi patients. In this case-control study we established that the carriage of D allele is significantly associated with an increased risk of RHD (odd ratios 3.6) and more importantly with mitral valve involvement ( $p=0.03$ ). These results raise the possibility of stratifying RHD patients by genotype, and certain subgroups may benefit from targeted therapy.

see page 176

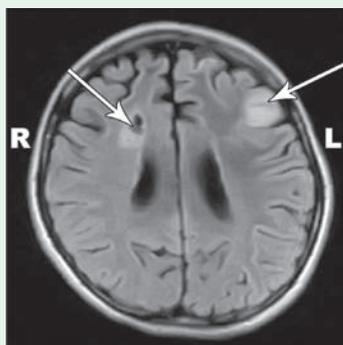
### Restless leg syndrome among Saudi end-stage renal disease patients on hemodialysis

Restless leg syndrome (RLS) is common in end-stage renal disease (ESRD) patients on hemodialysis, and it is an important source of sleep disruption. This is a cross-sectional study carried out in 3 hemodialysis centers in Jeddah, Saudi Arabia, between June 2012 and September 2013. Three hundred and fifty-five patients were recruited. The prevalence of RLS among ESRD patients was 19.4%. Restless leg syndrome was significantly associated with obstructive sleep apnea ( $p<0.0001$ ) and excessive daytime sleepiness based on the Epworth sleepiness scale ( $p=0.009$ ). The odds of developing RLS increased significantly with increasing body mass index ( $p=0.001$ ). The administration of aspirin ( $p=0.037$ ) and anticoagulants ( $p=0.035$ ) was also associated with increased risk of RLS.

see page 204

## CASE REPORT

### Fanconi anemia associated with moyamoya disease



Magnetic resonance imaging (flair image) showing left frontal focal area of acute ischemic infarction (arrow), and right parietal periventricular white matter old infarction (arrow).

Moyamoya disease is a rare association with Fanconi anemia (FA). The authors describe a young Saudi girl who has FA and presented with recurrent alternating hemiplegia that resolved spontaneously. The brain magnetic resonance angiography showed a cerebrovascular pattern of moyamoya disease. She underwent partially matched related donor stem cell transplantation (SCT), but unfortunately died 3 months later with post SCT complications, mainly infection. The association of moyamoya disease with FA is considered a truly congenital defect and it is rarely reported in the literature. To identify the etiology of this association, further genetic mutation analysis for FA is needed. This is a very rare association between 2 rare conditions, and reporting such cases from Saudi Arabia and other Arab countries with high consanguinity is very important.

see page 233