Mixed picture: The state of periodontology in the UK

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_The UK is gearing up to host the largest conference in Periodontology and Implant Dentistry ever held with EuroPerio8 taking place on 3-6 June at London ExCel. Over 100 speakers will contribute to the main scientific programme and there are many additional sponsor sessions. Over 1,500 abstracts have been accepted. Already over 7,000 periodontists, implantologists, general dentists and dental hygienists from 96 different countries have confirmed their attendance. We expect to have nearly 10,000 people at the conference in total, a new record for a conference in this field, and it is till not too late to reqister.

Given the huge popularity of this event, it is perhaps a perfect time to reflect on the state of periodontology in the UK. It is clear that periodontal disease is not going to go away any time soon. Although there is a lack of detailed epidemiology of the disease in the UK, the Adult Dental Health Survey provides a useful indicator of trends in the epidemiology of the disease, even if it probably seriously underestimates true prevalence rates, owing to the limited methodology used in this survey.

The good news is that there has been significant reductions in the number of people with visible plaque and calculus present, (but this is still reported as 45 per cent of the population) and concomitant reductions in the amount of mild periodontal disease, consisting of gingivitis and those with low levels of attachment loss. However, perhaps unexpectedly, this has not been associated with similar reductions in moderate and severe periodontitis. In fact, the number of adults with severe periodontitis (pocketing of 6 mm+) has increased from 6 per cent in 1998 to 9 per cent in 2009. The reasons for this may be complex but are likely to include the fact that we have an increasingly aging population, and that dentists are (rightly) taking out fewer teeth even when judged to have poor long term prognoses.

This disconnection between trends in plague control to more severe destructive periodontitis is a common finding in a number of recent epidemiological surveys in different populations and underlines the complexity of aetiological factors which determine susceptibility to destructive periodontitis. Although plaque tends to correlate directly with gingival disease, in the majority of people this may not necessarily result in the progression to more severe periodontitis. The major risk factors which are implicated in this process including smoking, genetic factors, and medical factors, particularly diabetes and medications such as calcium channel blocker antihypertensive drugs.

The impact of the well documented rise in the numbers of older people may be particularly impor-



Access to specialist treatment services within the NHS remain very patchy.



tant for future treatment needs. The over 65-year olds are often fit and well and have high expectations for their continued health needs, even though they may also suffer from common medical conditions such as type 2 diabetes and hypertension and may take multiple medications.

_Impact of periodontal disease

Periodontal disease has typically been seen as a "silent disease" which might have few consequences unless resulting in tooth loss. However, there is now lots of evidence to refute this concept. Patients with periodontitis consistently report significant impacts of the condition on their quality of life, particularly impacting on function, aesthetics, comfort and self esteem. Furthermore, even mild disease resulting in gingival bleeding and perhaps halitosis impact on social acceptability and remain highly legitimate reasons for treatment need. Prevention of more severe disease is of course best achieved by primary prevention and early disease control by achievement of high levels of plaque control together with management of modifiable risk factors, particularly smoking cessation.

Periodontal disease has now been associated with risk of a number of other systemic conditions, most notably cardiovascular and cerebrovascular disease, among many other conditions. It has been clearly shown that periodontal disease causes a measurable systemic inflammatory response but it is not at all clear that periodontal treatment actually reduces the risk of these conditions, or whether the conditions are associated through common factors such as genetic predisposition. Nevertheless, given the importance of these systemic conditions it is recommended that periodontal health should be regarded as part of general health.

_Manpower

Clearly there remains a major, often unmet, periodontal treatment need within the UK population, which represent a significant challenge for dental health professionals. There are currently over 30,000 registered dentists and over 6,000 dental hygienists in the country. In addition, there are approximately 300 periodontists on the specialist list, who work mainly in private specialist practices or in the hospital and university services. Given that there are an estimated five million cases of moderate to severe periodontitis, and perhaps 20 to 30 million with some signs of periodontal disease, it would appear that these relative proportions of dental manpower are not currently ideally suited for the provision of primary and secondary periodontal care according to actual clinical needs. There are of course a significant but unknown number of general dentists who provide a degree of periodontal treatments that might otherwise considered to be at secondary care level.

The number of specialist periodontists in training is small (certainly less than 20 every year), which is probably insufficient to maintain the total number on the specialist list over time. There is considerable interest and some commitment to providing a group of dentists with additional skills in specific restorative specialties including periodontology, who could potentially meet much of the treatment need for secondary care periodontal treatment, but this group does not really exist at the present time. It should also be commented that this model of periodontal care provision does remain essentially untested on a large scale at present.

Overall the picture of periodontal care provision in the UK at present is mixed at best. In most areas of the

country, those choosing to seek their periodontal care from the private sector, are able to access specialist care from highly trained periodontists and their teams, who often provide a wide range of effective and sophisticated treatment options. However, outside the dental schools there is little or very patchy access to specialist treatment services within the NHS. Recognition of this manpower deficit and a move to address it through intermediate level training in periodontal therapy is an encouraging but still unproven development.

Possibly the most important health professional for the implementation of primary prevention are dental hygienists. Although there is little evidence on deployment of hygienists within primary care, anecdote suggests that they may spend much of their time removing supragingival calculus (as prescribed by their employing dentists) without any routine attention to properly targeted attempts to provide adequate personalised oral hygiene instruction. Indeed the whole issue of the routine "scale and polish" as a therapeutic intervention has been questioned and is the subject of current research projects whose findings are yet to be reported.

_Implantology

Many aspects of implantology, including surgical management, management of soft and hard tissues, and management of peri-implant health and disease, are squarely within the realm of periodontal treatments, and implantology is indeed a substantial component of specialist training in periodontology. Whilst the growth in implant treatments has been markedly slower than in many other European countries, there is now a large and ever growing use of dental implants in UK dental practice and a wider acceptance from significant numbers of patients of the value of implants and their potential cost/benefits. It is quite clear that the potential for implant treatment could never be met within the National Health Services as the costs could potentially swallow much of the total NHS budget. However some recognition of the clinical needs and cost/ benefits on a more individual basis even within the NHS dental services would appear to be inevitable in the future.

There are two major developing issues, which are partly related to each other, which may particularly affect the periodontist practicing implant dentistry. Firstly, there is the growing problem of peri-implantitis. Reported prevalence rates of long standing implants do vary but are typically on the region of 30 per cent. This progressive destructive condition creates particular problems as it appears to be much more difficult to manage than its first cousin, periodontitis. As many more implants have been placed for a number of years there is great concern about the growth of this condition.

Secondly, apparently oblivious to the above problems and an understanding of long term survival rates of teeth and implants, there is a disturbing trend amongst some to advocate early removal of diseased teeth and replacement by implants. There may be some short term gains for the dentist and/or patient to be had from this approach but it is a sure way to store up major new problems for the future.

So there remains a lot to do tackle periodontal disease in the UK. One of the most encouraging developments in the near future is the development of care pathways within the General Dental Services which place considerable emphasis on prevention, risk factor management and tackling early periodontal disease, as well as mapping out appropriate care pathways for those in need of more involved periodontal treatment. This will inevitably be painful for some as it represents a new way of service delivery based on evidence based outcomes. However it also carries with it the prospects for better provision of higher level periodontal care, particularly if the planned development of dentists with some specialist skills is successful.

_Challenges remain

The challenge of managing periodontal disease in an increasingly aging population are likely to become a major issue going forward, and at time the profession will have to consider how it interacts with general medical services, for example in screening and detection of the currently estimated 750,000 people in the UK who may have undiagnosed diabetes. The private sector looks set to increase its provision of specialist periodontal care and implant provision. The challenges of long term implant survival and management of peri-implant disease will present new challenges for many. There will undoubtedly be novel treatments and developments which we can only speculate on. Interesting times indeed but there is lots to do._

about the author



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