

Medical emergencies in general dental practice are uncommon but they do occur

Medical emergencies in general dental practice in Great Britain Part 1: their prevalence over a 10-year period
G J Atherton, J A McCaul and S A Williams *Br Dent J* 1999; 186: 72–79

Objective

To assess the prevalence, nature and outcome of medical emergencies experienced by general dental practitioners (GDPs) over a 10-year period.

Design

Postal questionnaire survey of a random sample of GDPs in Great Britain.

Subjects

1500 GDPs, 1000 in England & Wales and 500 in Scotland.

Results

There was a 74% response. Emergency events were reported by 70.2%: the number reported by a single individual ranged from none to 33. The most commonly experienced events, including those associated with general anaesthesia were (as a percentage of the total) for England & Wales and Scotland, respectively: fits and seizures (31.0%, 36.3%); swallowed foreign bodies (15.7%, 18.1%); attacks of asthma (13.8%, 11.1%); chest pain associated with angina pectoris (10.1%, 11.0%) and diabetic events (10.6%, 9.0%): none of these resulted in any serious sequelae. More events were reported in Scotland. Overall, there were 20 deaths resulting

from medical emergencies reported in the survey, 4 affecting passers-by and none associated with general anaesthesia. 8849 years of practice experience were represented (by 94% of respondents), from which an estimate of the frequency of events was made.

Conclusions

An emergency event was reported, on average, for every 4.5 practice years in England & Wales and 3.6 years in Scotland and death associated with general dental practice, on average, once in 758 and 464 years, respectively.

In brief

- Medical emergency events are uncommon in general dental practice and serious events are very rare. However they do occur.
- Two-thirds of respondents reported at least one emergency event. It is advisable to be prepared for the unexpected.
- There is a continued downward trend in the number of dentists providing treatment under general anaesthesia.

Comment

This is a timely and valuable survey which has been carried out in a constructive fashion. I doubt whether it could have been done as a randomised controlled trial, for it certainly would not have received the same large response of 74%. It represents the opinion of a considerable number of dental practitioners, hopefully chosen by random numbers, but it is apparent from the results that an appreciable number carried out general anaesthesia in their practices. The number of years of practice reported is an interesting figure.

There is one reservation that I have with this paper. I think that there is a serious omission in that it does not ask about fainting (vaso-vagal syncope), which, in my experience, is by far the commonest complication/emergency in general dental practice. It seldom becomes a severe emergency but serious sequelae can arise if quick attention is not paid to the prevention of hypoxia.

The inclusion of 'seizure' is rather puzzling for it is not a term which is commonly used in the UK to describe specific medical events other than epileptic fits or strokes. Medical dictionaries differ slightly on the definition of seizure but in the UK it is nearly always a sudden attack of illness

frequently associated with fitting or strokes, whereas in American dictionaries it is considered to be caused by strokes alone. As fits/seizures are shown as one specific group and stroke is shown as another perhaps seizures are meant to include anything from feeling ill or fainting.

As analysis of the pilot study did suggest that vaso-vagal syncope with immediate recovery or presumed responses to intravascular administration of adrenaline-containing local anaesthetics were frequent, I can only assume that the frequency with which they apparently took place did not seem to require deeper investigation. This information would, I believe, have been invaluable, especially as one faint resulted in a fall with facial lacerations sustained by the patient and is included among 'other' events. Nevertheless, I could certainly not recollect how many vaso-vagal attacks I had observed in the last 10 years of practice and the authors may have decided, as I think I would, that it would not be the type of information recorded on a medical history sheet, unless it was a regular event.

This paper does not attempt to separate practices which provide general anaesthesia and/or sedation — either intravenous or inhalational. Slightly more precise results may have been obtained had it been possi-

ble to obtain information in this form.

Despite slight semantic difficulties with the form of data collection, one cannot fail to agree wholeheartedly with the conclusions which the authors draw in their last paragraph. It is fundamental that dental practitioners should be able to deal rapidly and effectively with emergencies, even if they do occur in the waiting room and not necessarily among the patients but those waiting to accompany the patients home.

This was an ambitious effort and hopefully it will lead to detailed analysis of specific groups which practice techniques such as inhalational sedation only, intravenous sedation only, and practices which use only the services of a general anaesthetist. It would have been helpful if the authors had attempted to discover the approximate number of patients treated each year by those included in the survey as this would have given a more credible value to the incidence of emergencies given in terms of practice years. Perhaps this can be considered by others in later studies for which this particular series sets an excellent example.

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Patient expectations of implant therapy are high

Patient expectations of oral implant-retained prostheses in a UK dental hospital
 P F Allen, A S McMillan and D Walshaw *Br Dent J* 1999; 186: 80–84

Statement of problem

The loss of the natural dentition leads to severe functional impairment in many edentulous adults. A prosthesis retained and supported by osseointegrated dental implants may provide a satisfactory solution for people who have lost all their natural teeth. However, little information is available as to what patients requesting implants expect of implant-retained prostheses.

Aim

The aim of this study was to assess the expectations of a group of edentulous patients requesting implant therapy.

Method

The study included two groups: (1) a group of edentulous adults who requested implant therapy ('implant group'); and (2) an edentulous control group, of similar age and gender distribution as the implant group, receiving conventional complete dentures. Following a clinical and radiographic examination of the patients, data were collected using validated questionnaires. Both groups made a subjective assessment of current dentures. The implant group also completed a questionnaire which assessed expectations of implant-retained prostheses.

Results

Baseline satisfaction with current dentures was low in both

groups, with the implant group being significantly less satisfied with comfort and stability of their mandibular dentures. Perceived ability of the implant group to chew hard foods was less than the control group. The implant group's expectations of an implant-retained prosthesis were significantly greater than for a conventional denture.

Conclusion

Careful assessment of patient expectation of implant therapy is essential to determine appropriate treatment need, and to highlight unrealistic expectations.

In brief

- Patients requesting dental implants report significant functional limitations with conventional complete dentures.
- Expectations of implant therapy are high — this could influence satisfaction with outcome and should be carefully assessed.
- Self-completed questionnaires may complement clinical assessment when planning implant therapy.

Comment

This study is of interest to all practitioners, whether private or hospital-based, working with implants. It looks at a most difficult area of implant provision, which is the expectations of patients. Demand for implant therapy is likely to increase as the public become more aware of this treatment option although, as the authors point out in this study, information regarding patient's expectation of implant therapy is sparse.

The authors looked at two groups of patients, those requesting implants to retain a complete prosthesis and a control group of patients requesting replacement dentures by conventional means. The patients were given a questionnaire which covered an assessment of their present dentures and their expectations of an implant-retained denture. The control group were asked about their expectations of the conventional treatment they were about to receive. It was found that implant patients are more dissatisfied with their existing dentures. In particular, the implant group found eating particular foods such as apple, bacon and nuts more difficult. The implant

group had high expectations of their forthcoming treatment with regard to retention, stability, comfort, speech and appearance.

There is no doubt that implant patients expect a major improvement in oral function following implant therapy. They perceive that they will be either totally or very satisfied with their implant-retained prosthesis when compared with natural teeth. The authors point out that such expectations may be unrealistic and discuss the consequences of this clinically. If expectations are unrealistic then implant patients may become disappointed with the outcome with the real possibility of dissatisfaction with the treatment. Patients should be informed of the nature of the procedure, the aftercare required and the possibility of fixture failures. There are different methods of modifying patient expectations prior to treatment. The use of a questionnaire similar to the one in the study will help to screen out patients with unrealistic expectations and data derived will influence the type of treatment that should be undertaken.

The authors should be congratulated on their study which will assist clinicians in their implant assessment and it is a useful

reminder that the provision of implants is a challenging treatment option. This study captures the nature of functional complaints but the authors are well aware of the psychological and social problems that are also present in denture wearers. The authors will be tackling this in a follow-up study and contributing more essential knowledge to the literature.

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