

RESEARCH SUMMARY

Tooth extraction: A referral centre revisited

The behaviour, social status and number of teeth extracted in children under general anaesthesia:
A referral centre revisited

M. T. Hosey, J. Bryce, P. Harris, S. McHugh and C. Campbell *Br Dent J* 2006; 200: 331–334

Objective

To report on the changing profile of children attending for Dental General Anaesthetic extractions (DGA) at the same centre in 1998 and again in 2004 compared to 1991.

Design

Prospective clinical.

Setting

Glasgow Dental Hospital DGA service during August 1999 and August/September 2004.

Subjects and method

Children presenting for DGA extractions. Data recorded: age, gender, number of teeth extracted and level of behaviour using the Frankl scale.

Results

In 1999: 190 children (97 boys) mean age five years. In 2004: 106 children (55 boys) mean age five years. There was a significant increase in the mean number of teeth extracted ($p < 0.001$), 4.2 (1–16) and 7.8 (1–17) in 1999 and 2004 respectively, compared to 3.7 in 1991. Twenty-six per cent of children had between six and 16 teeth extracted in 1999 compared to 74% in 2004. Significantly fewer children demonstrated 'definitely positive' behaviour compared to 1991. Children were in the poorest socioeconomic groups, reflecting the geographic area.

Conclusion

Over half of the children were aged five years and under. Fewer highly co-operative children were treated. More teeth were extracted per child, suggesting that there should be greater opportunities to carry out restorations, not just extractions under general anaesthesia.

IN BRIEF

- Provides an insight into how general anaesthetic extraction services for children have changed.
- Shows that DGA extraction services are now more fully directed towards 'pre-cooperative' children.
- Suggests that improved assessment and caries diagnosis has led to increased numbers of extractions.
- Questions whether 'extraction' only services under general anaesthesia should ultimately be augmented by GA services that provide restorative treatment.

COMMENT

Commencing with the Poswillo Report of 1990,¹ the last 15 years have seen a raft of changes in relation to the provision of dental general anaesthetic services for children, a prime objective being to reduce the number of potentially co-operative children receiving an 'avoidable' general anaesthetic. Disappointingly, evidence as to how the characteristics of children referred for extractions under general anaesthesia have changed over this period has hitherto been scant.

This study compared the characteristics of children receiving dental extractions under general anaesthesia at Glasgow Dental Hospital and School at three time points (1991, 1999 and 2004). Over the entire period, the mean age of children treated by the service remained static at five years; however, due to changes in local policy, the age range decreased from 1–17 years in 1991 to 3–10 years in 2004. The mean number of teeth extracted per child in 2004 (7.8) was significantly higher than at the two previous time points (3.7 in 1991 and 4.2 in 1999). In addition, the percentage of children having between six and 16 teeth extracted increased from 26% in 1999 to 74% in 2004.

The changes in the characteristics of children treated by this single referral centre are attributable to its commendable introduction of a rigorous specialist (paediatric dentistry) pre-operative assessment system, including appropriate radiographic examination. This has allowed children, particularly those requiring only a small number of extractions, to be diverted to alternative forms of treatment such as local anaesthesia and sedation. The concomitant increase in the number of extractions per child was to be expected on the basis of the previous observation of Holt *et al.*² that screening through such a system leads to the removal of an increased number of teeth.

When, in the UK, the primary method of treating children with caries is by extraction, a radical approach is justifiable in cases where it has become necessary to turn to general anaesthesia as the last resort. However, this contributes nothing to changing a culture which, in failing to recognise the importance of restoring primary teeth, treats the primary dentition as dispensable and pre-school and younger school-age children with contempt. Surely our children deserve better?

L. Hunter, Clinical Senior Lecturer in Paediatric Dentistry,
Cardiff University

1. Poswillo D E. General anaesthesia, sedation and resuscitation in dentistry. Report of an expert working party prepared for the Standing Dental Advisory Committee. London, 1990.
2. Holt R D, Al Lamki S, Bedi R *et al.* Provision of DGA for extractions in child patients at two centres. *Br Dent J* 1999; 187: 498–501.

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