A Personal View

Intravenous Sedation: The Risk to the Dentist

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The risk of intravenous sedation to the patient is well documented. It now appears that there is also a risk to the dentist, not so much one of health but one of illegality, loss of career and personal esteem. Martyn Fields looks at some of the evidence, and gives advice on how to avoid a dangerous predicament.

DENTAL procedures are considered unpleasant by many patients and are so abhorred by some that considerable pain will be endured to avoid attendance and treatment. For decades some of these cases have been assisted by the use of general anaesthesia or sedation; in recent years the introduction of the benzodiazepines have made this a safer and more pleasant experience. There is, however, growing evidence that an unfortunate side effect; that of vivid hallucination, is present in a proportion of cases and this proportion is higher in patients treated with benzodiazepines.

That some patients dream when undergoing general anaesthesia or sedation is a commonly observed phenomenon, and indeed this is taught in the undergraduate curriculum. As early as 1912, Professor Guido Fischer reported the possibility of erotic manifestations of both local and general anaesthetics.[1] In the case of diazepam, a study by Donaldson and Gibson[2] showed the incidence of hysterical reaction and hallucination to be sufficiently common that the authors recommended that patients be escorted for the remainder of the day. In another study, 15 patients sedated with diazepam, fentanyl and methohexitone reported episodes of dreaming, hallucinating, or becoming sexually aroused.[3] Patients' recall of these incidents was sketchy and incomplete; however more recent cases using midazolam or diazepam have produced vivid sexual fantasies which form a logical sequence, and are frighteningly real to the patient, have been recorded.[4,5] Naturally, unless the patient reports to the dental staff what he or she feels to have occurred at the time and can thus be reassured by the various staff present, a complaint to the police may follow.

A Recent Case

In a recent case, in Manchester, a dentist was prosecuted for allegedly assaulting four patients whilst they were sedated with midazolam. Following the initial complaint from one patient, the police examined all the patient records and interviewed any female patients who had been treated under sedation. This investigation revealed a further three complaints after direct questioning. The dentist was eventually convicted on two counts on majority verdicts, these are currently subject of an appeal.

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As a result of this case letters were published in the medical and dental press requesting information from practitioners of any incidents of hallucinations in patients receiving treatment under sedation. This produced 15 replies giving direct reports of incidents (Tables I and II). Several second hand and purely anecdotal reports were also received but have been excluded due to the difficulty in confirming details of the events. It is of interest to note that none of these cases had been reported to the Committee on the Safety of Medicines (CSM), and, partly as a consequence, no reports or warnings appear in the *British National Formulary* or *Dental Practitioners Formulary.*

The cases reported in this paper are a mixture of observations by the dental surgeon (Table I) of events that occurred whilst the patient was sedated, and complaints or comments made by the patient or relative to the dentist after the sedation had taken place (Table II). These complaints were resolved by the dentist without involvement of the police or a formal complaint being made.

It is worthy of note that in all but two cases the patients were being treated by a dentist of the opposite sex, in one of the exceptions the patient was known to be homosexual. Four of the five patients who masturbated in the dental chair were male and all of the patients that hallucinated were female. The danger to practitioners administering sedation with regard to these fantasies is obvious, a successful prosecution following a complaint will mean a prison sentence and loss of career. An accusation of a sexual nature is easy to make and notoriously difficult to defend.

Naturally a chaperone, preferably female, should be present throughout the sedation, however, the experience of the Manchester dentist would suggest that this may not be sufficient.

Although he always practised with one, and frequently two, dental surgery assistants present, who gave evidence in his defence, he

Table I Observations by dental surgeons

Sex of patient	Sex of dentist	Age of patient	Drug	Observation by dentist
M	F	20	Diazepam	Masturbation
F	M	?	Diazepam and pentazocine	Grabbed dentist
F	M	30	Nitrous oxide	Sexual excitement
M	F	9	Nitrous oxide and halothane	Acted like a baby and sexual comments
M	M	48	Diazepam	Masturbation
M	F	25	Diazepam	Masturbation
M	F	30	Diazepam	Masturbation
M	M	30	Midazolam	Masturbation
F	M	22	Midazolam	Masturbation

Table II Complaint by patient or relative

Sex of patient	Sex of dentist	Age of patient	Drug	Complaint by patient or relative
F	M	18	Nitrous oxide	Saw dentist naked
F	M	42	Diazepam	Increased sexual appetite
F	M	30	Diazepam	Felt breasts kissed and fondled
F	M	?	Brietal, nitrous oxide and halothane	Rape
F	M	18	Brietal and Atropine	Sexy dream
F	M	25	General anaesthetic	Sexual affair

was still found guilty. At the time of sedation the patients gave no indication of any problem or any untoward effects, indeed one of the complainants attended for two subsequent appointments to complete her course of treatment. On the only occasion when the allegation could be tied down to a precise time, the dental surgery assistant was able to confirm her presence but her testimony was not accepted by the court. Expert evidence as to the documented side effects and the danger of grouping together the spontaneous and elicited complaints was also disregarded.

Since this case came to court in 1989 another similar case has also been heard in Manchester. It would appear that the legal profession is now becoming aware of the problems associated with sedation in view of the growing number of reports in the medical and dental literature.

What Can Be Done?

Before undertaking sedation colleagues are urged to consider the following:

1. To consider whether sedation is worth the risk.
2. To consider referring all female patients requiring sedation to a female partner or associate.
3. To ensure that the DSA acting as chaperone is present from the time of administration of the sedative until the patient leaves the premises, and that the DSA's name is recorded in the patients notes.
4. To consider allowing a relative of suitable disposition to observe the procedure and stay with the patient throughout.
5. To consider video recording sedation sessions with a tamper-proof time/date recording as used in banks and building societies. Such records should be kept for 5 years.

The incidence of sexual fantasy in patients undergoing sedation is very difficult to assess due to the natural reluctance on the part of the patient to discuss such events. The cases reported here are probably just the tip of the iceberg, making it all the more important to report all adverse reactions to the Committee on Safety of Medicines so that the risks may be established, and to aid defence in future cases.

References

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