Comment

These cases showed that HBIG only delayed and did not prevent the appearance of an overt clinical hepatitis. This confirms and extends the findings of Seeff *et al*¹ and Grady and Lee.¹ As there was no evidence of a second exposure in our HBsAg-negative unit (the Italian patient left three days after the nurses had pricked themselves and the two clinical histories were completely linked) the hypothesis of a second exposure with a normal delay can definitely be ruled out.

The explanation for late onset cases seems to be that the virus is already established at the time of HBIG administration but that the clinical expression of the disease appears only when antibody concentrations fall to a level at which viral antigens can develop. If no late cases occur when HBIG is given four hours after exposure² delay in administration of HBIG seems critical; in our two cases HBIG was given seven hours after exposure and clinical hepatitis developed in both.

The clinical evolution of those two cases was the same as in those of Seeff *et al*³ and Grady and Lee,¹ although the HBIG we used, delivered by the Swiss Red Cross, had a titre of 1 4000 rather than one of 1 500 000, and treatment was not repeated one month later.

Although Seeff *et al*³ reported that HBIG depresses active antibody production, HBsAg had cleared from the blood of our two patients a few weeks after the clinical episode.

¹ *British Medical Journal*, 1976, 1, 241.

² *Lancet*, 1975, 2, 1132.

³ Seeff, L B, *et al*, *Lancet*, 1975, 2, 939.

¹ Grady, G F, and Lee, V A, *New England Journal of Medicine*, 1975, 293, 1067.

⁵ Krugman, S, and Giles, J P, *New England Journal of Medicine*, 1973, 288, 755.

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Upper gastrointestinal endoscopy with and without sedation: patients' opinions

Patients tolerate endoscopy of the upper alimentary tract well when diazepam is given intravenously and prefer this to morphine.¹ Diazepam is now accepted as the best method of sedation (though the addition of premedication may be beneficial²) but it does have disadvantages. Some patients become violent and may damage the instrument; facilities for caring for semiconscious patients are needed; and talking to patients afterwards is impossible because of their amnesia. Moreover, someone has to drive outpatients home. Possible complications are respiratory depression, inhalation of gastric contents,³ thrombophlebitis,⁴ and even pulmonary embolus.⁵ Endoscopy elsewhere in Europe and in Japan is usually done without sedation. We report a study on patients' reactions to endoscopy with and without diazepam.

Patients, methods, and results

One hundred patients (group 1) received pharyngeal anaesthesia with lignocaine and intravenous diazepam given slowly until dysarthria was produced. Another 100 (group 2) had pharyngeal anaesthesia only. A further 100 patients (group 3) were selected for endoscopy without sedation if they were likely to tolerate it well, judging from the results of group 2. Those who might tolerate it badly were given intravenous diazepam. All were sent or given a questionnaire after their endoscopy. The statistical difference between the groups was calculated by χ^2 test. The three groups were similar as regards age (average 54.1 years) and sex (60% men).

The ease of examination and patient response to endoscopy are shown in the table. Significantly more patients in group 2 found the examination

unpleasant ($P < 0.001$), were worried about a repeat examination ($P < 0.001$), or preferred a barium meal ($P < 0.001$); the examination failed or was unsatisfactory more often ($P < 0.001$). Differences between groups 1 and 3 were not significant. There was no difference between the groups as regards passage of the instrument or the transient after-effects of sore throat and stomach ache, which were found in 45 and 22%, respectively.

Ease of examination and patients' responses to examination. Results are numbers of patients

	Group 1	Group 2	Group 3
Passage of instrument:			
Difficult	10	17	3
Failed	0	4	0
Examination:			
Incomplete or hurried	2	13	0
Remember examination:			
Only just	25	5	43
Not at all	53	3	11
Remember pain:			
On insertion of endoscope	2	37	17
On moving endoscope	4	26	10
Unpleasant retching	8	50	25
Found examination unpleasant:			
Mildly	4	32	10
Severely	2	11	4
Worry about repeat examination:			
No	91	50	85
Yes	8	49	14
Refused it	1	1	1
Prefer barium meal	30	62	25
Prefer endoscopy	62	35	61
No preference	7	2	6
No x-ray examination	1	1	8

Endoscopy was poorly tolerated without sedation by women, patients under 40, and those with vomiting or oesophageal reflux; three-quarters of all these patients would be worried by a repeat examination compared with 9%, 50%, and 15% in groups 1, 2, and 3, respectively. The endoscopist, the patient's smoking habits, and diagnosis did not affect tolerance. Heavy drinkers tolerated endoscopy badly regardless of sedation: half the heavy drinkers in each group would be worried by a repeat examination.

Discussion

Endoscopy without sedation is acceptable to many patients. The advantage is saving time (as patients walk in and out), the easy communication, and reduced risk to the instrument—for example, two young men went berserk under diazepam and damaged the instrument; in both endoscopy was performed easily without sedation later. Nevertheless, an unacceptably large number found it unpleasant without sedation.

The best practice was to select patients for endoscopy without sedation (group 3) according to certain criteria; this led to 61% of patients preferring endoscopy to a barium meal. Men, patients over 40, and those without oesophageal reflux or vomiting are suitable. Young women and those who gag when the pharynx is sprayed usually need diazepam. There is no way of foretelling violent reactions to diazepam; if this happens the instrument should be withdrawn rapidly to avoid damage and then endoscopy may be done later without diazepam.

Careful discussion beforehand is in itself a form of premedication. Some in group 2 had, without us realising it, been told that they would be put to sleep; so anxiety was caused by not giving diazepam. Sight of the endoscope creates fear; bandaging the eyes may cause more worry than it alleviates and was abandoned. Now we dim the light in the endoscopy room and try to produce the instrument with the deftness of a conjurer when we examine the conscious patient.

We thank W S Chao for demonstrating that the technique he learnt in Japan could be used successfully in this country, and Dr K Matthews for the statistical analysis.

¹ Ludlam, R, and Bennett, J R, *Lancet*, 1971, 2, 1397.

² Cook, P J, *et al*, *Gut*, 1974, 15, 842.

³ Schiller, K F R, Cotton, P B, and Salmon, P R, *Gut*, 1972, 13, 1027.

⁴ Langdon, D E, Harlan, J R, and Bailey, R L, *Journal of the American Medical Association*, 1973, 223, 184.

⁵ Hoare, A M, *Journal of the American Medical Association*, 1974, 230, 210.

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