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References

[1] Arie, T, *British Medical Journal*, 1975, 3, 641.
[2] Bewley, B R, and Bewley, T H, *Lancet*, 1975, 2, 270.

Hospital Topics

Assessment of preoperative cases

T W OGG

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Summary

A total of 200 outpatients in Aberdeen were invited to complete a simple preoperative anaesthetic assessment questionnaire. Of these patients 45·5% had significant medical histories and 59% were on concurrent drug therapy. The form was thought to be valuable for day-case anaesthetists and surgeons.

Introduction

Preoperative assessment of day cases in British hospitals is extremely variable. In Aberdeen an anaesthetic assessment form has been devised to estimate the medical problems related to outpatient surgery. An earlier study[1] of day-case surgery showed a high incidence of postoperative symptoms. The object of the present study was to examine in detail the preoperative period.

Method

Two hundred outpatients aged between 3 and 80 attending Aberdeen Royal Infirmary were studied. There was an equal number of men and women for each type of operation. One hundred patients were scheduled for minor genitourinary surgery, 50 for dental surgery, and 50 for orthopaedic procedures. On admission each patient was invited to complete an anaesthetic assessment questionnaire. The form was in three parts—(*a*) instructions concerning food, fluids, and driving; (*b*) a questionnaire to assess the outpatient's medical history (see fig); and (*c*) a consent form to be signed by the patient and witnessed by the medical staff. An anaesthetist studied the completed forms before surgery and the details recorded were checked against the individual patient's medical case notes.

Results

The results from 200 preoperative forms (table I) showed an incidence of allergy of 8%, preoperative coryza of 9·5%, pre-existing medical conditions of 45·5%, and concurrent drug therapy of 59%. No relevant preoperative findings were recorded from 8·5% of patients.

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QUESTIONNAIRE

Please tick the correct answers as follows: ☑

1 Have you or your family had any problems connected with anaesthesia or operations? Yes ☐ No ☐

2 Are you allergic or sensitive to anything? Yes ☐ No ☐

3 Have you suffered any recent illnesses from which you do not feel fully recovered (coughs, colds, etc)? Yes ☐ No ☐

4 Have you ever suffered from, heart disease, high blood pressure, chest disease, bronchitis, asthma, a bleeding tendency, jaundice, rheumatic fever, TB? Yes ☐ No ☐
If yes, please specify

5 Are you having, or have you had in the past year, any form of medicine, tablets, injections, inhalers etc, including tranquillisers, sedatives, antibiotics, cortisone or steroids, and drugs for epilepsy, high blood pressure, diabetes, thyroid disease, asthma, and bronchitis? Yes ☐ No ☐
If yes, please specify

6 Do you have any crowned teeth ☐ wear dentures ☐ wear contact lenses ☐ ? (Please tick if appropriate)

7 Any woman patient who is, or thinks she is, pregnant must let the anaesthetist know.

8 Is there anything else you feel the anaesthetist should know?

9 When did you last have anything to eat or drink
(Applicable only if form completed on day of appointment.)

Second part of day case record form. Questionnaire given to outpatients before operation.

TABLE I—*Results from 200 anaesthetic assessment forms*

Medical history	No of patients			Total (%)
	Dental	Genitourinary	Orthopaedic	
Allergy	3	9	4	8·0
Coryza	5	12	2	9·5
Pre-existing medical condition	21	45	25	45·5
Concurrent drug therapy	23	68	27	59·0
Dental history:				
Crowns	5	4	7	8·0
Dentures	6	64	37	53·5
Obesity	1	6	3	5·0
Nil	11	4	2	8·5

The distribution of pre-existing medical conditions is shown in table II. All these groups of outpatients had a similar incidence of cardiovascular, respiratory, and metabolic problems ranging from 12% to 20%. The number of patients attending already on drug therapy before operation is shown in table III. The incidence varied from 46% to 68% in the three groups. Central nervous system depressants were the commonest medication, and 31% of patients attending for genitourinary surgery were taking these.

TABLE II—*Pre-existing medical conditions*

Medical conditions	Procedures		
	Dental (n = 50)	Genitourinary (n = 100)	Orthopaedic (n = 50)
Cardiovascular*	6	18	10
Respiratory†	9	17	8
Metabolic‡	6	12	9
Total	21 (42%)	47 (47%)	27 (54%)

*Cardiovascular conditions included angina, coronary thrombosis, rheumatic fever, and peripheral vascular disease.
†Respiratory conditions included chronic bronchitis, asthma, epistaxis, pulmonary tuberculosis, and sarcoidosis.
‡Metabolic conditions included diabetes, jaundice, and obesity.

TABLE III—*Distribution of drug treatment*

Drugs	Procedures		
	Dental (50 patients)	Genitourinary (100 patients)	Orthopaedic (50 patients)
Antibiotics	12	16	8
Cardiovascular*	0	8	3
Respiratory†	4	2	0
Central nervous system‡	5	31	14
Others§	2	11	2
Total	23 (46%)	68 (68%)	27 (54%)

*Cardiovascular drugs included antihypertensive agents, digitalis, beta-adrenergic blockers, and anticoagulants.
†Respiratory drugs included bronchodilators, and cough elixir.
‡Central nervous system drugs included tranquillisers, hypnotics, analgesics, and antidepressants.
§Others included thyroxine, steroids, antacids, iron, and oral hypoglycaemic agents.

Discussion

The assessment form was devised to help anaesthetists in their preoperative evaluation of outpatients. Only 2% of patients needed help in completing the form and inaccurate information was obtained in 3% of cases. The form might be improved by the inclusion of a question on the patient's smoking habits. The results show how useful a simple questionnaire can be. The fact that 45·5% of day surgical patients had a significant previous medical history must be taken seriously. Even allowing for the younger age of the dental patients all three groups studied had similar medical histories.

Table III shows the variety of medical conditions an unsuspecting anaesthetist may come across during day-case surgery. The high incidence of cardiovascular, respiratory, and metabolic illnesses reported in this series may prompt anaesthetists and surgeons to co-operate in the establishment of combined preoperative assessment clinics. A case[2] has already been made for an anaesthetic assessment clinic for elective surgery. The questionnaire used in the present study may be a step in the right direction towards a more comprehensive assessment of preoperative cases.

The importance of drug interactions with anaesthetics is well established.[3] The wide distribution of drugs found in this study will be of interest to practising anaesthetists. Of patients attending for outpatient surgery 59% were on some form of pharmacological preparation. Of patients with genitourinary conditions 31% were taking central nervous system depressants. Probably more important were those patients on potent cardiovascular, respiratory, or steroid preparations. All doctors treating day patients should be aware of these problems and a strong case could be made for including consultants in day surgery.

A short dental history was obtained because of the modern medicolegal implications for anaesthetists who damage teeth during endotracheal intubation. Of the patients 53·5% had dentures and 8% had crowned teeth; this was regarded as valuable preoperative information.

In conclusion, there seems to be a need for adequate preoperative assessment for all outpatients attending hospital for surgery. The preoperative questionnaire described in this project has highlighted the extent of the problem. Further studies are under way to estimate the preoperative findings of dental outpatients attending for extractions under general anaesthesia.

References

1 Ogg, T W, *British Medical Journal*, 1972, **4**, 573.
2 Burn, J M B, *Lancet*, 1974, **11**, 886.
3 Grogono, A W, and Jones, A E P, *Anaesthesia*, 1968, **23**, 215.

Does breast feeding give the baby greater protection against infections than artificial feeding?

The advantages of breast feeding over artificial milk formulae have been clearly shown: the most important is the fewer bacterial and viral infections in breast-fed infants seen, particularly in the gastrointestinal tract. Undoubtedly this protection is not due only to immunological factors since the readier toleration of the natural product by the infant and the ease with which bacterial infection can be excluded during feeding often contribute to the infant's welfare. Nevertheless, the specific immunity to infection through breast feeding is of vital importance. Secretory antibody of immunoglobulin class A (IgA) is the principal protective antibody of the gastrointestinal tract, in which it neutralises both bacterial and viral infections.[1] IgA is, moreover, resistant to tryptic digestion. As in other species, this antibody is the major immunoglobulin in human milk and it protects the infant from infections which are acquired via the gastrointestinal tract during a critical phase of development when the infant is acquiring its own ability to synthesise immunoglobulins and is still vulnerable to infections. IgA may also protect the infant from the onset of allergic disorders.[2] More recent findings suggest that human milk is probably a rich source of other proteins which can neutralise micro-organisms non-specifically.

1 Bienenstock, J, *Progress in Immunology II*, vol 4, p 197. Oxford, North-Holland, 1974.
2 Taylor, B, *et al*, *Lancet*, 1973, **2**, 111.

Is there any advantage in shortening the recommended four to six week interval between the first and second injection of typhoid vaccine? Should a patient travelling to Spain (for example) in 15 days time be given one or two injections?

There is no advantage in shortening the recommended four to six week interval between the first and second injection, as this allows for the development of the optimum degree of protection. The period may, however, be shortened without risk to the patient if necessary but an interval of at least 10 days should be allowed to elapse between the first and second injections.

Can the yoga position called siv asana (head stand) when maintained for a minute or two cause any adverse effects on the cerebral circulation in a healthy 46-year-old man?

Probably not, but, when there is arterial insufficiency from early atheroma, impaired venous return to the heart and inefficient baroceptor responses in the arterial system could lead to reduced cardiac filling, with resultant cerebral ischaemia. The increased intracranial pressure might also be harmful. Provocation of epilepsy and migraine-like attacks has also been reported in previously healthy people.[1]

1 Kugler, J, *Medizinische klinik*, 1972, **67**, 1195.