

NEWS LETTER



Founded
20th February, 1914

December, 1968
No. 9

THE SCOTTISH SOCIETY OF ANÆSTHETISTS

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69 Campsie Drive, Bearsden, Glasgow

Editor of Newsletter

Dr. WALTER NORRIS

28 Auchinloch Road, Lenzie, Glasgow

"The objects of the Society will be to further the study of the science and practice of anæsthetics and the proper teaching thereof, and to conserve and advance the interests of anæsthetists."

"Ordinary membership will be restricted to members of the medical profession practising the specialty of anæsthetics."

—Extracts from the Constitution.

Subscriptions

£1 per annum.

10/- per annum for Senior House Officers and Registrars.

Presidents of the Society since 1950

1950—Dr. John Gillies.	1960—Dr. A. Tindal.
1951—Dr. H. H. Pinkerton.	1961—Dr. J. W. L. Bain.
1952—Dr. T. J. C. MacDonald.	1962—Dr. Margaret Muir.
1953—Dr. W. M. Shearer.	1963—Dr. Alex. C. Forrester.
1954—Dr. I. M. C. Dewar.	1964—Dr. J. D. Robertson.
1955—Dr. F. G. Gibb.	1965—Dr. A. G. Miller.
1956—Dr. H. Bruce Wilson.	1966—Dr. J. A. Bolster.
1957—Dr. R. Lawrie.	1967—Dr. A. W. Raffan.
1958—Dr. R. N. Sinclair.	1968—Dr. J. R. Kyles.
1959—Dr. Alison Ritchie.	

Guest Speakers at Annual General Meeting

1951—Dr. W. W. Mushin.	1960—Sir Dugald Baird.
1952—Dr. M. H. Armstrong Davison.	1961—Dr. G. S. W. Organe.
1953—Dr. Ivan Magill.	1962—Prof. W. D. M. Paton.
1954—Prof. R. R. Macintosh.	1963—Prof. E. A. Pask.
1955—Dr. T. Cecil Gray.	1964—Dr. Martin Holmdahl.
1956—Dr. M. D. Nosworthy.	1965—Prof. J. G. Robson.
1957—Dr. J. Alfred Lee.	1966—Prof. A. Crampton Smith.
1958—Dr. L. B. Wevill.	1967—Dr. Sheila Kenny.
1959—Dr. Margaret Hawksley.	1968—Dr. R. B. Goudie.

Honorary Secretaries of the Society since 1950

1950-53—Dr. R. N. Sinclair, Glasgow.
1953-57—Dr. A. G. Miller, Glasgow.
1957-63—Dr. M. Shaw, Glasgow.
1963-67—Dr. A. H. B. Masson, Edinburgh.
1967 —Dr. D. Campbell, Glasgow.

Honorary Members

Dr. D. Keir Fisher, Glasgow.
Dr. John Gillies, Edinburgh.
Dr. D. S. Middleton, Edinburgh.
Dr. Margaret C. Muir, Dundee.
Dr. W. B. Primrose, Glasgow.
Dr. Winifred Wood, Coll.
Dr. H. H. Pinkerton, Glasgow.
Dr. Alison Ritchie, Edinburgh.

Senior Members

Dr. Ellen B. Cowan, Glasgow.
Dr. Margot W. Goldsmith, Edinburgh.
Dr. A. McCallum Millar, Edinburgh.
Dr. Elaine Stocquart, Glasgow.
Dr. Sheina Watters, Edinburgh.
Dr. A. M. Brown, Glasgow.
Dr. Mary Brown, Glasgow.
Dr. W. H. F. Boyd, Edinburgh.
Dr. R. G. Grieve, Glasgow.

The Scottish Society of Anæsthetists

. . . Founded 20th FEBRUARY, 1914

A. CONSTITUTION

- (1) The name of the Society will be "THE SCOTTISH SOCIETY OF ANÆSTHETISTS."
- (2) The objects of the Society will be to further the study of the science and practice of Anæsthetics, and the proper teaching thereof, and to conserve and advance the interests of Anæsthetists.
- (3) The Society will consist of Honorary Members, Senior Members, Ordinary Members, a President, a Vice-President, a Secretary, a Treasurer, and an Executive Council formed by the above Office-bearers, together with seven Ordinary Members, two from each of the regions centred on Edinburgh and Glasgow, and one from each of the regions centred on Aberdeen, Dundee and Inverness.
- (4) Ordinary Membership will be restricted to Members of the Medical Profession practising the speciality of Anæsthetics.
- (5) Senior Members may be elected from Ordinary Members who have retired from active practice.
- (6) Honorary Members may be elected on the recommendation of the Council and with the approval of the Society. Such Honorary Members would be elected from those who, either as Anæsthetists or in other spheres, have contributed in some special way to the advancement of Anæsthesia.
- (7) A meeting will be held every year, at a time and place to be appointed by the Executive Council.

B. ELECTION

- (1) Ordinary Members may be elected by a two-thirds majority of those present, at any regular meeting, nominations by an existing Member to be sent to the Secretary one calendar month before the day of election.
- (2) Nominations for Vice-President, Secretary and Treasurer will be made annually by the Executive Council, and will be circulated to Members along with the notice of the Annual General Meeting. Any further nominations for these Offices may be submitted to the Secretary 14 days before the date of the Annual General Meeting.
- (3) Regional Representatives will serve on the Executive Council for a period not exceed-

ing three years, and on retiring from office will not be eligible for re-election to the Council within a period of one year.

- (4) Nominations for vacancies in the Executive Council created by retirement will be called for at the Annual General Meeting, and a ballot held if necessary.
- (5) The President who retires at the Annual Meeting will automatically become an additional member of the Executive Council for the ensuing year.

C. DUTIES OF OFFICE-BEARERS AND MEMBERS OF EXECUTIVE

- (1) The President will preside at the Meetings both of the Society and Executive Council, and will have a casting as well as a deliberative vote. He will hold office for one year.
- (2) The Vice-President will act for the President when required to do so. He will automatically become President for the following year.
- (3) The Secretary will keep all the records of the Society, will notify all Members of the business of the Society, and send accounts of the Meeting to the Journals. The Treasurer will collect subscriptions, pay accounts and render a financial statement to the Annual Meeting.
- (4) The Executive Council will be consulted by the President upon all matters concerning the conduct and interests of the Society, and will be permitted to record their vote by post upon any question in dispute.

D. SUBSCRIPTION

- (1) Ordinary Members will pay an annual subscription of £1; Registrars and House Officers will pay 10/-.
- (2) Any Member who has not paid his subscription for the current year may, at the discretion of the Executive Council, cease to be a Member of the Society.

E. GENERAL

- (1) No alteration of, or addition to, the rules may be made save at an Ordinary Meeting after one month's notice given to the Secretary, who will place the suggestion upon the Agenda.
- (2) Personal as well as official guests may be invited to the Meetings and Dinners of the Society.

Activities of the Year, 1967-68

Registrars' Meeting

Glasgow, 20th October, 1967

This meeting was attended by 54 junior anaesthetists from all centres. During the morning the following clinical demonstrations were arranged:—

1. Respiratory Intensive Care Unit—ward round and demonstration of techniques.
2. Pre-operative assessment of analgesic and sedative drugs.
3. Electromyography — studies of new muscle relaxant drugs.

In the afternoon short papers were delivered by members of the staff of the department in Glasgow Royal Infirmary on the following subjects:—

1. The use of trichlorethylene for long-term pain relief.
2. Premedication. The effect on arterial oxygen tension.
3. E.C.G. changes followed closed chest injuries.
4. Four years' experience of respiratory intensive care.

The Annual General Meeting was held in Pitlochry Hydro from 26th to 28th April, 1968, and is reported in detail later in the Newsletter.

In place of the scientific meeting normally held by the Society, a **Scientific Meeting** was held in Glasgow on 11th May, 1968, jointly with the Faculty of Anaesthetists. This consisted of a Symposium on the Action of Anaesthetic Drugs in the Central Nervous System, the following papers being given:—

1. Structure and Ultra-structure of Nerve Terminals (Professor G. W. Causey, D.Sc., F.R.C.S., Sir William Collins, Professor of Human and Comparative Anatomy, Royal College of Surgeons of England).
2. Cerebral Isolates and the Study of Central Depressant Drugs (Professor H. McIlwain, Ph.D., D.Sc., Department of Biochemistry, Institute of Psychiatry, London).
3. Intersynaptic Transmission in the Central Nervous System (Professor H. Schnieden, M.D., Department of Pharmacology, University of Manchester).
4. Effects of Central Nervous System Depressants on the Reticular Formation

(Dr. E. Marley, M.D., F.R.C.P.(Ed.), Institute of Psychiatry, London).

5. Selective Afferent Blockade in Clinical Anaesthesia (Professor J. Clutton-Brock, F.F.A.R.C.S., Department of Anaesthetics, University of Bristol).

Neurosurgical Anaesthetists' Travel Group

A meeting of this Group was held on 4th May, 1968, at the Royal Infirmary, Aberdeen. Dr. W. N. Rollason, Department of Anaesthetics, Aberdeen Royal Infirmary, Foresterhill, arranged an interesting programme of papers and most generous hospitality for the participants.

The papers given were:—"C.S.F. Pressures in Anaesthesia" (Dr. W. Fitch, Glasgow), "Cerebral Perfusion in Neurovascular Surgery" (Dr. D. C. White, Aberdeen), and "The Diagnosis of Intracranial Processes by Radio-isotope Scanning" (Mr. W. M. Nichols). Demonstrations and a visit to Phase I Extension completed the programme.

Discussion was brisk after each paper and this was assisted by the attendance of neurosurgeons, neurologists, a biochemist and pathologist.

Payment of Annual Subscription by Banker's Order

FROM time to time, members have requested that they be allowed to pay the annual subscription to the Society by Banker's Order. It was realised that this would be of benefit to the member and to the Society alike, but with successive secretaries operating through different banking accounts it was not considered workable to inaugurate such a scheme.

Arrangements have now been made whereby those members who prefer to pay the annual subscription by Banker's Order may do so through the Head Office of the Bank of Scotland, The Mound, Edinburgh. The Society's financial year ends 31st March, and payment by Banker's Order may therefore begin with the subscription for the ensuing year, payable 1st April. The scheme is commended to members for their own convenience, for the Society's financial situation, and for the facilitation of the Hon. Treasurer's duties.

A form suitable for use is available on application to the Hon. Treasurer.

Annual General Meeting — Pitlochry

Pitlochry was again the venue for the Annual Meeting in 1968—a tribute to the previous successful visit to the Hydro in 1967.

On Friday over 50 members and guests attended a performance of "Our Town" at the Festival Theatre. When they returned to the Hydro they were entertained to a showing of the collection of slides built up over the years by Dr. Ben Bannatyne. Many members saw themselves and colleagues old and new as they had been caught by Dr. Bannatyne's camera in varied poses at previous meetings.

Saturday morning found the golfers on the golf course while the non-golfers visited McNaughton's Tweed Mill. Once more the trade exhibit proved of great interest. At the Annual General Meeting Dr. Raffan handed over the Presidential Chain to Dr. J. R. Kyles. Dr. Malcolm Shaw was elected Vice-President.

The Treasurer's Report showed the Society to be still in excellent financial shape with the balance sheet showing a slight increase in surplus revenue.

The scientific part of the meeting was sustained by the presidential address by Dr. Kyles, a fascinating paper by Dr. R. B. Goudie on the problems of tissue transplantation and the Registrar's Paper read by Dr. Robinson,

deputising for Dr. Smart. All are reported elsewhere.

The reception and dinner were attended by well over 100 members and guests and a faithful few completed the week-end on the golf course on Sunday. We look forward to our return to Pitlochry in 1969.

Golf Outing

The golf match was again played over the nine-hole course adjoining the Hotel and the advantages of having the course to ourselves were appreciated once more. The dull, damp weather and the minute greens did not deter us however, and least of all Dr. Bain who played round these greens with an accuracy that forced us to conclude that his golf ball must have been fitted with an electric homing device, imported perhaps from Cape Kennedy!

The winners were as follows:—

Gents—1, Dr. J. W. Bain (Aberdeen), 42 points; 2, Dr. W. L. M. Baird (Glasgow), 37 points; 3, Dr. Walter Norris (Glasgow), 36 points.

Ladies—1, Mrs. Keith Holloway (Glasgow), 28 points; 2, Mrs. Ken Grigor (Glasgow), 27 points; 3, Miss Gillian Pinkerton (Glasgow), 26 points.

The Scottish Society of Anaesthetists

Programme for 1968-69

1. Registrars' Meeting—Dundee.
Friday, 15th November, 1968.
2. Neurosurgical Anaesthetists' Travel Group—
Enquiries should be made to Dr. Allan S. Brown, Edinburgh or to Dr. A. Harvey Granat, Killearn Hospital, Glasgow.
3. Thursday, 27th February, 1969.
Closing date for submission of papers for Registrars' Prize.
4. Annual General Meeting—Pitlochry Hydro
Hotel—25th-27th April.
Guest speaker—Dr. Patrick Shackleton,
Southampton.
5. The Scientific Meeting will be held in
Dundee in May, 1969.

Presidential Address . . .

. . . Dr. J. R. KYLES

LET'S BE HONEST

In this address "Let's be honest" I intend to generalise on the side effects and undesirable features of drugs we use for premedication, induction of anaesthesia, and muscular relaxation.

Let's be honest, we use specific drugs for specific effects in anaesthesia but we have to learn to live with the side effects of these drugs. In order not to be entirely negative I will try to outline how I have recently altered my ways to overcome in some measure the undesirable features in these three aspects of anaesthesia.

Premedication

In preparing this presidential address I sent out a questionnaire to members of this Society to find out their views on premedication and the drugs which they were using. This was intended to allow me to arrive at clinical impressions on various questions relating to premedication. Even in these days of highly scientific investigations and organ transplantation clinical impressions may still be of considerable value. I regard them as a supplement to the controlled clinical trials which are carried on by some of our other members.

Of the 134 returned questionnaires, 117 on adults and 116 on children have been used. The honesty of many of the replies is most refreshing. One such answer to the question "Why do you use premedication?" was "To ensure that the House Surgeon will get in touch with me the night before so that I can learn what is on the list on those days on which I have been unable to get to the hospital!" Most of the replies indicated that the commonest reason for giving premedication was to allay apprehension. The amnesic effect was not considered important since nowadays the induction of anaesthesia is not an unpleasant affair and many people may not wish to miss this experience.

An anti-emetic effect was sought by some members but others omitted drugs which were considered liable to produce post-operative vomiting. Many of those using analgesic premedication only did so when they considered that the patient was likely to be in pain pre-operatively. Few gave premedication simply to potentiate anaesthesia. Members were divided on the advisability of using drugs to reduce

secretions during anaesthesia and, while the majority continued to use drugs to obtain this effect, I have the impression that this was more from habit than forethought, one honest comment being "I am not convinced that this is necessary as a routine measure." Those who did not use belladonna derivatives commented strongly on the dry mouth which these agents produced and many felt that the use or otherwise of atropine was dictated by their choice of anaesthetic agent. Members were again divided on the desirability of using atropine to produce a vagolytic effect and the therapeutic effect of intramuscular atropine in this connection was questioned.

The indications for premedication in children were considered to be similar to those in adults except that in children more members used agents for their analgesic effect and to potentiate the anaesthetic agents.

The drugs used in premedication

No less than 27 different drugs were mentioned in the premedication of adults and 23 different drugs for children. These range through the opiates, non-opiate analgesics, phenothiazines and the more recent neuroleptic drugs. Often these were used in combination. A number of members used in addition the tranquillising drugs and hypnotics, barbiturate and others.

Satisfaction with the drugs used

The answers obtained to this part of the questionnaire were many and varied. Many members used the traditional drugs because they considered that better drugs were not available. Others, however, appeared quite satisfied with them and it was interesting to note that many who used a specific drug were satisfied with it while almost an equal number using the same drug were dissatisfied.

Route of administration

Most members continued to use the traditional injection of their premedication one hour pre-operatively. A number used oral premedication although some considered it ineffective and some unsafe. There appears to be growing dissatisfaction with the present routine of administering premedication to a patient one hour before his visit to theatre.

having taken no steps to relieve his anxiety up to this point.

It is difficult to draw conclusions from many of these impressions and I would not wish to generalise on them since many of the techniques are used under varying conditions, in different surroundings with different surgeons, and as a result of years of experience. For long the opiates and the phenothiazines have held sway in a field in which people have now become set in their ways. More recently the use of tranquillising drugs and the use of "pre-medication" has developed from the work of Inglis and Barrow in Birmingham. Clearly, one's use of premedication depends on one's aim in premedication and as Stetson has pointed out "different physicians may look for different results, one requiring heavy psychic sedation, the other a fairly alert but calm patient in the anaesthetic room." The incidence of anxiety in pre-operative patients is high and this may be tackled in a number of ways. In addition to administering drugs one may exercise one's skill in finding out the causes of the patient's anxiety and, where possible, allaying these fears by a pre-operative visit. Secondly there is much to be said for a good night's sleep before operation and Buxton has claimed that a terrified patient after a sleepless night is in the worst possible state for an anaesthetic or operation. Routine heavy pre-medication is very often a method of covering up the deficiencies in the other methods of allaying anxiety and is paid for with a high incidence of side effects, nausea, vomiting, cardiovascular and respiratory depression. I was surprised to find from the questionnaire that only a small number of members is using the benzodiazepine group of drugs which includes Librium or chlordiazepoxide, and Valium or diazepam. These members were, however, satisfied with its use and had been using it for a period of up to 24 hours pre-operatively and then giving atropine with the thiopentone.

Valium or diazepam appeared to be used by only one person—myself. My experience with this drug, using 10-20 mgm, substantiates the claim that it has a calming or tranquillising effect and the patient arrives in the anaesthetic room possibly asleep but easily arousable and not disorientated. The patient is calm and the incidence of respiratory depression and hypotension is noticeably less than with more conventional types of premedication. While not described as an anti-emetic, it certainly does not produce post-operative sickness. While I initially used the drug intramuscularly,

I have for the past six months given it orally and am still satisfied with the results obtained. The Belfast workers have found a low incidence of side effects with both Librium and Valium and they are not far behind the opiates in desired effect. When allaying apprehension should we not be satisfied with drugs less potent than the opiates—drugs whose specific effect is to allay apprehension—and pay more attention to the good night's sleep before operation? Should we not reserve the use of the opiate type of drugs for post-medication to provide analgesia and tranquillity when pain is present?

Children's premedication

Attitudes to children's premedication vary from time to time and place to place. Not long ago atropine alone was advised by many, sedative premedication being avoided for paediatric patients. More recently, Vallergan has been a popular choice with many, although I have disliked it because of the frequent occurrence of pallor which accompanied its use. Like many others, I am still looking for a more satisfactory drug in paediatric work. It may be that diazepam has a role to play in this sphere but the results from various centres have been conflicting on its efficacy. The variation in results may be associated with variation in dosage. In contra-distinction to other drugs it has been noted that on occasion a smaller dose of diazepam sometimes produces more satisfactory results than a larger one.

Belladonna derivatives

Atropine and hyoscine, used in premedication for their anti-sialogogic or vagolytic actions, are unpleasant in their effects in the pre-operative period. Many members have commented on this, and I have now abandoned their use with the premedication designed to allay anxiety and give the drugs intravenously when they are indicated at the time of induction.

Intravenous induction of anaesthesia

For over 30 years we have been using barbiturates intravenously to induce anaesthesia and tolerating their side effects, mainly respiratory depression and hypotension. Their use is of undisputed value both to the patient and anaesthetist, and the patients no longer dread the actual induction of anaesthesia. The occurrence of the undesirable side effects is always a worry to the cautious anaesthetist although these effects are often transitory and may be avoided or minimised by judicious reduction of dosage. There remain, however,

Muscle Relaxant Drugs

certain patients, particularly the ill, the elderly, the hypertensive, the hypovolaemic and those with fixed cardiac outputs, in whom these side effects can be dangerous and are not easily avoided. In addition, the combination of the depression produced by thiopentone and hypotension following the use of muscle relaxants and positive pressure ventilation remains a strong disadvantage. Also, the barbiturates increase the sensitivity to pain and the duration of this effect depends on the dose. To avoid the dangers of these side effects I started to use diazepam in an intravenous solution, diluting 20 mgm to 6 cc with distilled water, to induce anaesthesia. This agent has many advantages in producing less depression than the barbiturates, particularly in the elderly and infirm, provided the correct dose scheme can be employed. There is a wide variation in individual patients as shown in the recommended scheme of Stovner and Endressen which ranges from 0.2 mgm to 0.6 mgm/Kgm. In a series of 150 cases I found that the average dose was 0.37 mgm/Kgm. I now use the drug on an empirical basis as one does with thiopentone in a dose range of 10-25 mgm, or even higher depending on my assessment of the clinical status of the patient. The onset of unconsciousness is slow and entirely different from that seen with thiopentone and methohexitone. The patient may start to talk incoherently, the eyelash reflex may or may not persist and occasionally the patient may in a mild way resent application of the face mask. Some authors have doubted whether all patients were asleep after induction with this agent, and at first I too was apprehensive that some patients might not have gone off to sleep until I discovered that this apprehension was not shared by the patient who had no memory of these events post-operatively. Indeed, on being questioned, most of them were enthusiastic on their sleep induction. The slow loss of consciousness, however, has led me to be cautious in the use of relaxants immediately after diazepam, particularly if succinylcholine is to be used, lest the fasciculations might awake the patient in an apnoeic state. This can, however, be avoided by giving nitrous oxide, oxygen and halothane immediately after what appears to be a satisfactory induction prior to administering the succinylcholine. While other side effects are less marked than with the barbiturates, recovery of full consciousness may be somewhat slower and to a Scottish audience in particular one must point out that diazepam is more expensive than the conventional barbiturate induction!

The muscle relaxant drugs which have now been in use for over 20 years have been a great boon to anaesthesia but are not without their undesirable effects. Succinylcholine, which has the advantage of a short profound onset of muscular relaxation, has a formidable list of undesirable features—no antagonist, prolonged apnoea in susceptible subjects, the danger of dual block, undesirable cardiac effects following repeated injections and the occurrence of muscle pains post-operatively.

The non-depolarising muscle relaxants similarly have undesirable effects manifest by autonomic blockade which is shown as tachycardia with gallamine and hypotension with curare. Histamine release also may be noticeable, particularly after the use of curare. In the presence of impaired renal function gallamine is known to cause recurarisation since it is excreted 100% in the urine. We are all aware also of the syndrome known as "neostigmine-resistant curarisation."

In an attempt to be rid of the drawbacks of these conventional relaxants I started using di-allyl-nortoxiferine or Alloferin and, impressed with the good results, it has been my relaxant of choice during the past four years. In appropriate doses, 1-1.5 mgm/stone, I have found this drug very satisfactory, giving a duration of action of 40-45 minutes. It has been criticised on account of difficulty in reversing its action by neostigmine but I have had little difficulty in this respect. This may be because the dose quoted in one textbook of anaesthesia for Alloferin is 1-1½ times the dose of curare whereas I have been using 1/2-2/3 the dose of curare.

How far does this drug answer the criticisms I have made of curare and gallamine? So far as autonomic blockade is concerned, most reports in the literature emphasise that Alloferin has no hypotensive action but Hunter noted a similar fall in blood pressure to that produced by curare when the drug was used with halothane. Clinically it is difficult to separate the factors during anaesthesia which contribute to a fall in blood pressure but it has been my impression that hypotension is not a hazard with Alloferin and I have not seen the precipitate falls in blood pressure which I have otherwise encountered from time to time with curare, particularly in the elderly, ill and hypertensive patients.

Alloferin also produces a lower incidence of histamine-release than does curare. While the clinical importance of histamine-release may be

debatable, its presence is undesirable and it would appear logical to avoid the use of curare.

It also appears safer to use Alloferin in patients with impaired renal function in preference to gallamine and there is evidence in the literature to substantiate this view.

Where neostigmine-resistant curarisation appears to be a risk—in patients with disturbed acid base states—it appears from the work of Coleman and others that Alloferin is probably the safer drug to use. My clinical impression is that reversal has not been a problem and this is so even in patients who might have been expected to be potential candidates for neostigmine-resistant curarisation. While the drug may fall short of the criteria of the ideal muscle relaxant, my use of it has suggested that it is a more reliable and predictable agent with fewer side effects than curare or gallamine.

While there will be many who dissent from some of the things I have said in this paper and some may be described as principles or as prejudices according to your viewpoint, I have departed from some of the standard empirical procedures which Beecher has stated "have a life if not an immortality of their own." As a practising anaesthetist, however, I am naturally interested in the drugs which promise to bring greater safety to my patients, while at the same time bringing the advantages already possessed by established agents.

APPENDIX

Survey of Premedication— Questionnaire

- (A) Why do you use premedication?
- (1) To allay apprehension—
 - (a) Adults.
 - (b) Children.
 - (2) Amnesic effect—
 - (a) Adults.
 - (b) Children.
 - (3) Antiemetic effect—
 - (a) Adults.
 - (b) Children.
 - (4) Analgesic effect—
 - (a) Adults.
 - (b) Children.
 - (5) Potentiation of Anæsthesia—
 - (a) Adults.
 - (b) Children.
 - (6) To reduce secretions of the respiratory tract—
 - (a) Adults.
 - (b) Children.

(7) Vagolytic effect—

- (a) Adults.
 - (b) Children.
- (B) What drugs do you use?
- (a) Adults.
 - (b) Children.
- (C) Are you satisfied with the drugs you use?
- (D) Route of Administration—
- (a) Adults.
 - (b) Children.
- (E) Do you consider oral premedication to be safe and effective?
- (a) Adults.
 - (b) Children.
- (F) Any additional information.

RESULTS OF QUESTIONNAIRE

Figure 1

Reason for Premedication.	Yes.	No.
To allay apprehension -	111 (104)	4
To produce amnesia -	38 (38)	77
Anti-emetic effect -	42 (39)	58
Analgesia -	82 (60)	30
Potentiation of Anæsthesia	65 (50)	43
Reduction of secretions -	84 (92)	26
Vagolytic effect -	67 (67)	44

Reasons given for use of premedication. The figures represent the number of replies in adults, the figure in brackets indicating the number of anaesthetists who used premedication for this purpose in children.

Figure 2

Drugs used.	Adults.	Children.
Papaveretum -	82	28
Pethidine -	62	24
Morphine -	43	18
Miscellaneous Narcotics -	17	22
Vallergan -	4	57
Phenothiazines -	57	11
Neuroleptic drugs -	26	5
Barbiturates & Hypnotics	7	29
Tranquillisers, e.g. Valium	7	4
Atropine -	97	83
Hyoscine -	52	11

Number of anaesthetists using individual drugs for premedication.

Figure 3

Routes of administration.	Adults.	Children
Injection -	98	38
Injection + oral -	14	45
Oral -	5	24
Oral with I.V. Atropine -	0	9
Rectal -	0	10

Number of anaesthetists using each route of administration.

Figure 4
Safety and Effectiveness of Oral Premedication.—

	Children		Adults	
	Safe	Effective	Safe	Effective
Yes	79	68	43	31
No	34	45	52	64
Don't Know ...	32	3	22	22

Guest Lecture . . .

. . . 27th April, 1968

Immunological Problems of Tissue Transplantation

R. B. GOUDIE

Department of Pathology,

The University and Western Infirmary,
Glasgow, W.I.

This lecture gives a brief general account of the main unsolved problem of tissue transplantation in man, the immunological rejection of grafts from a donor who is genetically dissimilar from the recipient. Whatever views you hold about the recent sensational reports of the short term successes or apparently disastrous failures of such human allografts, I am sure you will all agree that it would be most desirable to be able to replace a useless essential organ in an otherwise healthy young patient, especially if this were to lead to survival in good health for even a few years. It now seems likely that this may be achieved with the majority of renal transplants and possibly also with transplants of other organs.

Nature of the Rejection of Allografts (previously called Homografts)

The success of autografting or the transplantation of organs between members of a highly inbred strain of animals or between identical twins (i.e. isografts) shows that, for most tissues, the purely surgical problems of tissue transplantation have been overcome.

Similarly most allografts of tissue (i.e. when donor and recipient are genetically different but belong to the same species) "take" and function satisfactorily, only to die and be rejected in a few days or weeks with histological evidence of vascular damage, necrosis and inflammation.

The observation on burned patients by Mr. Tom Gibson of Glasgow that a second set of skin allografts from the same donor was rejected more rapidly than the first suggested that the recipient had become immunised by the first set of grafts. Subsequently Medawar and his colleagues formally showed the immunological nature of allograft rejection by studying skin grafts exchanged between different strains of inbred mice. Second set grafts were rejected more quickly only when the first and second sets had come from the same donor strain—i.e. the accelerated "second set" rejection had donor specificity comparable, for example, to the specificity of the antibody response to tetanus toxoid. Attempts to transfer the phenomenon of accelerated allograft rejection from sensitised to normal animals were made and it was shown that this could not be achieved by antiserum (unlike passive immunity to tetanus), but only by the transfer of lymphocytes. The transfer of immunological reactivity by lymphocytes is well established in so-called "delayed hypersensitivity," a good example of which is the Mantoux reaction for hypersensitivity to tuberculin; delayed hypersensitivity does not apparently depend on antibody in the ordinary sense of the word but

upon a specific alteration of the reactivity of certain sensitised lymphoid cells. From such experimental work it is now known that allograft rejection depends largely on the development in the recipient of lymphocytes sensitised to inherited "transplantation" or "histocompatibility" ("H") antigens present on the surface of the donor's cells, but not on the cells of the recipient. While this rule is generally true it is important to understand that allograft rejection is not uniformly severe with all tissues, skin being rejected more rapidly than kidney. Furthermore there are certain privileged sites such as the anterior chamber of the eye and the brain where allografts enjoy prolonged survival despite the gradual development of immunity against them. Finally there is evidence that, at least in some forms of allograft damage, circulating antibody of classical type is involved.

Acquired Immunological Tolerance

In addition to demonstrating immunity to specific histocompatibility antigens on experimental skin allografts in animals, Medawar and his colleagues found that equally specific *non* reactivity to allografts could be produced by intravenous injection of the recipient at birth with living cells from mice of the same strain as the prospective donor. The resulting "acquired immunological tolerance" permitted permanent survival of skin grafts from the donor strain even when the skin grafts were made several weeks later. A most important aspect of the phenomenon of acquired tolerance is that the animal is able to mount a normal immunological attack against bacterial and viral antigens and against grafts containing histocompatibility antigens other than those of the strain whose cells were injected at birth. It is now known that tolerance can be acquired in adult life by the repeated injection of very large (or occasionally very minute) doses of antigen, and if this could be achieved for transplantation antigens in man the transplantation problem would largely be overcome. Recent progress in this field has been made by the solubilisation and partial purification of human transplantation antigens (e.g. by Searle Research Laboratories) and by the demonstration that antilymphocytic serum (see below) facilitates the acquisition of immunological tolerance in adult animals.

Immunosuppressive Therapy

Until now most efforts to prevent the rejection of human organ allografts have aimed at diminishing the immunological reactivity of the

recipient. It would be ideal if some agent could be found which temporarily makes the recipient nonreactive to antigens newly encountered at the time of the transplantation while keeping his immunity to bacterial and other environmental antigens encountered in the past, and if during this nonreactive phase the recipient were to develop permanent acquired immunological tolerance specific for the donor's transplantation antigens. No such reagent has yet been discovered. Most of the methods of immunosuppression which have actually been used cause a general reduction in immune reactivity and neutropenia with serious danger of fatal infection. For this reason general body irradiation to prolong allograft survival has largely been abandoned and even with the widely used drugs such as azathioprine ("Imuran") and steroid hormones, some grafts can only be maintained by administering doses which are toxic or lethal. Thus, in recent years failure of kidney transplants has rarely been attributable simply to graft rejection; in half the fatal cases drug toxicity with or without infection has been the cause of death, while 20 per cent. have died with evidence of concurrent infection, toxicity and graft rejection. It is of interest that 2 per cent. of patients who have survived renal transplantation have developed reticulum cell sarcoma, and this is presumed to be an effect of immunosuppressive drugs on the lymphoid tissues.

The mode of action of some immunosuppressive drugs is fairly well understood. Azathioprine appears to inhibit certain enzymes concerned with the synthesis of purine bases required for the production of DNA and cell replication, and thus reduces the proliferation of lymphoid cells which lead to allograft rejection. The action of steroid hormones, which at present are used to "cover" rejection crises in patients receiving regular azathioprine, is more obscure, but they are known to cause lymphopenia, to inhibit phagocytosis and generally to diminish the inflammatory reaction.

Recently, largely due to the efforts of Professor M. J. Woodruff of Edinburgh, a new immunosuppressive agent, antilymphocytic serum (ALS), has been introduced. This is produced usually in horses by immunising them with human lymphoid tissue. The antiserum produced (ALS) or its less toxic purified globulin fraction (ALG) is the most powerful immunosuppressive known and does not cause bone marrow depression. Its precise modes of action are unknown but one of its main effects seems to be the selective destruction of those lymphocytes which are immunologically un-

committed but ready to respond to a newly encountered antigen (such as that provided by an allograft) by the development of delayed hypersensitivity. Production of classical antibody is little affected. Starzl has clearly shown that renal allograft patients treated with azathioprine and steroids require much less of these drugs when small doses of ALG are also given, and that renal function is better in the ALG treated patients. With the help of ALG 19 or 20 kidneys grafted from living donors a year ago are still functioning satisfactorily. Unfortunately standardisation of ALG produced in different animals has proved difficult and ALG has certain undesirable side effects including anaphylaxis and the production of foreign protein nephritis.

Tissue Matching

An alternative approach to the allograft problem is the accurate matching of donor and recipient with respect to transplantation antigens in a manner comparable to that used in the selection of blood for transfusion. Several methods of testing for compatibility have been proposed including observation of changes in recipient lymphocytes *in vitro* (in tissue culture with cells of prospective donors), or *in vivo* by injecting recipient lymphocytes into the skin of the prospective donor to see if a local "graft versus host" reaction occurs.

The most promising of the techniques available depends on the fact that people who have received multiple blood transfusions, or have received allografts or have been immunised by foetal transplantation antigens during pregnancy, develop antibodies which can be used to demonstrate transplantation antigens on allogeneic cells. Serum from such patients is cytotoxic *in vitro* to cells containing the corresponding antigens, and lymphocytes from the peripheral blood have proved to be convenient target cells in the cytotoxicity tests. By this technique a complex system of about 30 possible transplantation antigens in various combinations was shown to exist in man; it appeared that each individual would be virtually unique antigenetically and that suitably matched donors would not be found. Con-

trary to expectation the situation is becoming more hopeful. We now have monospecific tissue-typing antisera reacting with only one of the many transplantation antigens and using these, population and family studies have shown that most human transplantation antigens are coded by a series of genes closely situated on one chromosome inherited from each parent. This gene complex and its product (the HL-A system) are closely comparable to the major histocompatibility antigen system (H2) which has been well studied in the mouse. Since the genes which code the HL-A antigens lie close together on the same chromosome, they are inherited in blocks, and the antigenic diversity of human beings is very much less than was at first thought. It now seems that approximately 2 per cent. of the general population will for practical purposes be antigenically identical with an individual who requires an organ transplant. Tissue compatibility between blood relatives will be even more frequent.

If these recent findings are confirmed, and if donor tissue can be brought to matched recipients, then the immunological problems of human organ transplantation will largely have been solved. An organisation called "Eurotransplant" has already been set up for this purpose in Holland. Patients in Europe who are receiving repeated haemodialysis therapy have been tissue-typed, the results being stored in a computer. Whenever a potential donor is recognised, his tissue type is quickly investigated by cytotoxicity tests on his peripheral blood lymphocytes with a panel of monospecific antisera and the computer identifies and locates the most suitable recipient. Several "dry runs" have been successfully made by this organisation and it is hoped that Eurotransplant will be functioning effectively this year. It is not yet clear to what extent immunosuppressive therapy will be required to overcome any minor transplantation antigenic differences between donor and recipient matched in this way. If the scheme is a success, however, the main problems of tissue transplantation are likely to shift to the ethical and legal aspects and to techniques for prolonged storage of donor organs in the living state.

The Registrar's Prize

THE Society awards annually a prize of £35 for the best original paper submitted by an anaesthetist in Scotland, holding the grade of Senior Registrar or under. It is not necessary that he/she be a member of the Society.

The conditions attaching to the award are as follows:—

1. The paper must be original, i.e., it should not have been read previously at any meeting or published in any journal. The winning of the prize is in no way a bar to the subsequent publication of the paper.

2. It is desirable that papers submitted show evidence of personal work, but papers consisting of surveys of the literature are eligible for consideration. The Council of the Society wishes to stress that intending competitors should not be discouraged through fear of their efforts being judged elementary. It is fully realised that junior anaesthetists in some peripheral hospitals may not have opportunities to deal with special types of cases or to employ advanced anaesthetic techniques.

3. Papers for adjudication *must* reach the Secretary by the *end of February* at the latest.

4. The winner of the prize will be required to give a digest of the paper at the Annual General Meeting of the Society towards the end of April.

The Secretary places all entries in the hands of the Award Committee which consists of the President, Vice-President and Past President. The members of this Committee have expressed the desire to be able to adjudicate without knowing the name or hospital of the writer: it is requested therefore that the name, address, etc., of the entrant be submitted on a separate covering page. This will be retained by the Secretary, but otherwise the essay itself should give no indication as to its source: acknowledgment to colleagues, etc., should not be included.

The Prize for 1968 was awarded to Dr. John Smart of Glasgow Royal Infirmary for a paper entitled "Review of 100 Chest Injuries treated in the Intensive Care Unit of Glasgow Royal Infirmary." In the absence of Dr. Smart in America the paper was read by Dr. Gavin Robinson. The following is a summary prepared by Dr. Robinson:—

Review of 100 Chest Injuries treated in the Intensive Care Unit of Glasgow Royal Infirmary

Little is known of the incidence of morbidity after crushing chest injuries now that modern treatment allows many of these patients to survive. Damage to every organ in the chest has been recorded. Loss of lung function on the affected side has been observed and reports from the literature suggest both restrictive and obstructive disease may occur. Our studies confirm this.

One hundred patients were studied. They were placed in three classes. Those who could still breathe and cough effectively were in Class I while those who could do neither were in Class III. 52% were in Class I, 10% in Class II and 38% in Class III.

Treatment was along conventional lines — oxygen, analgesics, antibiotics and physiotherapy. Aspiration of the trachea, thoracocentesis and I.P.P.V. were carried out as required. 50% required chest drainage.

A third of the patients died, 25 (of the original 100) before leaving the Unit. Five of these were Class I patients but these deaths were associated with factors other than chest injury. 40% of the more serious cases died.

The other factors present in these cases included pre-existing chronic respiratory disease, present in one case out of six. Also, fully two-thirds of all patients had other major injuries, including head injury in most of these, and a third died. Of the head injury cases 15% had permanent disability from this cause and only about 50% recovered fully. Only a quarter of the cases had no serious associated factors but only two of these died.

The patients all had E.C.G.s within the first 24 hours and more than half of these were abnormal. However, at follow-up five out of six of the survivors had normal E.C.G.s and these patients were all symptom free.

Most of the patients returned for follow-up and only two could not be contacted at all.

Respiratory symptoms attributable to the accident were present in 45%. Of those with pre-existing disease, more than half were made worse by it.

Obvious chest deformity was present in five patients, all of whom had symptoms.

About a third of the survivors had grossly reduced values for vital capacity. The shape of the distribution curve is normal but has been shifted markedly towards lower values when compared to those expected for patients of the same build.

30% of survivors had abnormal forced expiratory volume studies but only half of these had associated symptoms.

Over half the survivors had normal chest X-rays. Abnormalities were most commonly

seen in the pleura but lung fields were abnormal in one out of six.

Half the survivors had returned to normal life. Of the remainder, half were disabled by head injury. The other seven were handicapped by limb injuries. Age did not affect ability to return to normal life.

Chest injury in itself, then, appears to respond well to treatment. However, so often the cases we see are complicated by other injuries, especially head injuries, which often overshadow the crushed chest in long-term importance.

Editorial Notes . . .

. . . Dr. W. NORRIS

This year has been a memorable one for anaesthetists in this country and may well have seen the beginning of changes affecting anaesthetists and doctors in general.

Scotland was proud to house the first Scientific Meeting held by the Faculty of Anaesthetists outside London. Despite the fact that the date chosen clashed with meetings in the South West of England and in Ireland, an excellent turnout of our own members helped to make the meeting a most successful occasion. Many visitors from south of the border commented on the friendly atmosphere which prevailed. Scotland also attracted overseas visitors who had attended the World Congress and several hospitals played host to guests, old and new.

This has been a year of change and potential change for medicine. The merging of the Ministry of Health and the Seebohm Report are seen by many as a subordination of medicine to the social services and administration. The English Green Paper on the future structure of the health services has appeared and met with strong criticism. The Scottish version is awaited at the time of writing. Meanwhile we have had time to digest the first report of the working party entitled "The Organisation of Medical Work in the Hospital Service in Scotland." This document with its divisional concept has some attractions for anaesthetists, although its implementation in full is likely to be long delayed by lack of funds—even if it were all acceptable.

The Royal Commission on Medical Education Report has some far reaching implications

for us all—including a suggestion that only University Centres should train junior anaesthetists. This large report goes far beyond our speciality and its implementation would not seem imminent.

These documents have been and are being discussed locally, regionally and nationally and it is hoped that the views of our speciality will be heard where and when this is possible. Meanwhile for good measure we have the moratorium on new medical assistant posts and the Committee enquiring into the duties and responsibilities of Consultants. These must have an impact on a speciality in which recruits are often scarce. And, finally, the Review Body Report—the non-report of the year; whatever one may feel about this thorny subject, it has certainly helped the recruitment of anaesthetists—in North America!

We are left with many of our previous difficulties, some better, some worse, but despite the plethora of reports it seems that money remains the root of our problems. It is not only attractive salaries—because we can probably never outbid the North American Countries in the competition for staff. Hospital building programmes and modernisation are painfully slow, and limited by the claims of other departments for houses, schools and roads. The staffing structure is not blameless in the present disillusionment of our junior staff—and many of their senior colleagues. We are now a large speciality and should be able to make some impact at all levels in helping to solve some of the problems which beset us as doctors as well as anaesthetists.

News from the Regions

Western Region

The President of the Glasgow and West of Scotland Society of Anaesthetists for the 1968-69 session is Dr. H. Y. Wishart. Visiting Speakers will have appreciated his kindness in making them feel at home, and his pithy humour in introducing and thanking them just as much as the locals have enjoyed a longer acquaintance with these qualities. Dr. Wishart was also mainly responsible for the most refreshing manner in which the firm of Organon Laboratories introduced their new muscle relaxant "Pavulon" (NA97) to the Society in St. Enoch's Hotel. The initial clinical work on "Pavulon" was carried out by Dr. Baird and Dr. Reid at the Glasgow Royal Infirmary, and S.N.P. members will be delighted to hear that the drug is also manufactured in Scotland. Tartan packaging is being considered.

Dr. Gordon McDowall has left the University Department of Anaesthesia at the Western Infirmary, Glasgow, to occupy the Leeds chair, to which he is certain to bring great distinction. Dr. Alastair Spence succeeds him as senior lecturer. With universal regret we learn that Dr. Simon Tindal is forsaking us to work in Canada.

Dr. J. W. Collins from Stobhill Hospital is spending a year in Nairobi at the developing Medical School of Kenya. After coping for that time with the kind of cases Dr. Oduro from Ghana detailed to us on his recent visit, he will no doubt consider the problems which bother the rest of us to be kids' stuff.

After leaving the Victoria Infirmary Dr. Ann McNulty spent three months in Northernmost Canada with the Eskimos before becoming a registrar at the Western Infirmary, Glasgow. It is rumoured that, on occasion, the Western do consider appointing registrars without experience in hypothermia.

The new Plastic Surgery Unit at Canniesburn is now in action and is most impressive in its modernity.

In line with the current trend intensive care units have been opened at the Hospital for Sick Children and the Western Infirmary, of eight beds and six beds respectively.

Building of the new District Hospital at Gartnavel has begun. It will commence its career by housing patients from the Western Infirmary while that hospital is being rebuilt,

and piling operations have already begun in front of the old Western.

At the Southern General the new department of Neurological Sciences which will eventually house Neurosurgery when it leaves Killearn, is growing rapidly, and a new 120-bedded maternity unit is also under construction.

There is little need for anaesthetists in the West of Scotland to fear redundancy for some time to come.

Finally, we record with regret the death of Dr. T. T. Stocker, one of our senior members.

South-East Region

The news which has given most pleasure in this region is the appointment to a Personal Chair in Anaesthetics of Dr. J. D. Robertson, a past President of the Society.

Staff changes in the region during the last year have been greater than usual, with four of the Senior Registrars becoming Consultants, Dr. C. McIntyre and Dr. L. V. H. Martin taking up appointments within Edinburgh, Dr. D. M. M. Robertson a post in Stirling and Dr. N. Cruikshank going to Ipswich.

Other changes have occurred with staff moving within the region, the most notable being Dr. K. B. Slawson's move to the new Renal Transplant Unit at the Western General Hospital and Dr. A. H. B. Masson's move to a combined post between Chalmers Hospital and the Royal Infirmary, emancipating him from the cardio-thoracic unit.

Last year it was reported that the Department of Anaesthetics had just moved to more spacious quarters. Following extensive structural alterations, the Department has emerged with improved accommodation, not the least of which is a very well equipped laboratory. With new facilities available, some attempt has been made to co-ordinate research within Edinburgh. To achieve this, a research group has been formed headed by Dr. D. B. Scott.

Social functions throughout the year have been largely successful, two of the dinners held being attended by more than 80 people. One of the dinners mentioned, was held on the occasion of Dr. Lillie S. Dummer's retiral, and the other to celebrate the establishment of

Professor Robertson's Chair. Once more the picnic for Anaesthetists and families was an enormous success. It was held for a third time at Tantallon Beach and the weather was again perfect. The choice of site and date was that of the Departmental sorceress, Miss D. M. Taylor, who disclaims all responsibility for the monsoon weather which once again dominated the Annual Golf Competition. The latter was played over the Royal Burgess Course at Barn-ton, and was won by Dr. C. Small.

North Region

Phase I of the new Inverness Central Hospital is well up to schedule, and will probably open late next year. It will include out-patient departments and laboratories.

The two main theatres at the Royal Northern Infirmary have been modernised and upgraded. New heating, lighting and air-conditioning plant have been installed; up-to-date sterilising equipment fitted and piped gases laid on. The instrument cleaning and preparation rooms have been completely redesigned and fitted out. More effective zoning of the operating suite into clean and dirty areas has been achieved by ingenious re-division of the available space with an absolute minimum of actual building.

To accomplish this the theatres were totally closed for only two weeks: then we worked in one theatre, while the contractors worked in the other.

By considerable rearrangement of our operating times we were able to cope with virtually our normal work load during the four months the work was in progress.

It was a very co-ordinated job, calling for neat dovetailing of a great many trades and sub-contractors; but was none-the-less completed almost precisely within the predicted time.

It is hoped very soon to have an Intensive Care Unit at Raigmore Hospital. Planning and costing activities are going ahead. At present the "intensive care" must be brought to the patient—which is wasteful of effort, time and manpower. We hope to be able to work with greater facility and effectiveness when a proper I.C. Unit is opened.

North-East Region

The reorganisation of our Department's work, mentioned last year, introducing a "Firm System," with responsibility for the anaesthetic

services to smaller specified surgical areas within the Aberdeen Hospitals delegated to various "firms," has continued. It is generally agreed to be a success and has had a number of benefits which include a more systematic training of junior staff (as they rotate through the firms), and a more satisfying work environment for the consultants responsible for running the firms.

Staffing changes have included the retirement of Dr. John Bain whom readers will remember as a quite recent past President of the Society. We are all deeply regretful to lose (not quite completely, I am glad to say) the services of Dr. Bain who has already—quite deservedly—become one of the Department's legendary heroes. We welcome back to the fold from Cardiff Dr. Bryan Kennedy, as Dr. Bain's successor.

Teaching, at both undergraduate and post-graduate levels, forms an ever increasing part of our Department's commitments and many of us feel that formation of a University Department of Anaesthetics is now overdue. Training junior staff for the primary fellowship examination poses fresh problems with the new curriculum, but we are fortunate in having an excellent liaison with a thriving Medical Physics Department who now lend assistance with our tutorial system for registrars, along with the other University Departments which have done so in the past.

Our various travellers are returning from abroad, Dr. George Robertson from an interesting year with Professor Parkhouse in Winnipeg, and Dr. Parry returns in December from his stay in the Massachusetts General Hospital. We are sorry, however, to be losing Dr. Bradshaw, whom our Glaswegian friends also know, as she is leaving for an indeterminate length of stay in Canada and U.S.A.

Eastern Region

Much progress has been made in the past year in the building of the new Teaching Hospital and Medical School at Ninewells, Dundee. It has now become a feature of the Dundee skyline, occupying as it does a magnificent site on the approaches to Dundee from the West. The theatre block, consisting of six identical theatres with their anaesthetic and recovery rooms, is beginning to take shape. It will be 1971 before the new hospital is fully operational, but some parts of it are already coming into use. The nurses' teaching unit, for example, opens at the end of this year.

The Queen Mother visited Dundee on 17th October, 1968 to open the Tower Extension of Dundee Dental Hospital and School. The Dental Hospital in Dundee is proud of its reputation for the teaching of anaesthetics to dental students and postgraduate dentists. The Department of Anaesthesia of Dundee Royal Infirmary has close ties with both the Dental Hospital and the Schools Dental Service, and these provide a good opportunity for junior anaesthetists in Dundee to learn dental anaesthesia.

At the Fourth World Congress of Anaesthesiologists in London in September a demonstration of Feature Card Indexing for Anaesthetic Literature was staged by the Department of Anaesthesia in Dundee as part of the Scientific Exhibition. Drs. Shearer, Lawson and McGowan manned the exhibit which attracted considerable attention and interest.

A link appears to have developed between Dundee and the Department of Anesthesiology of the Medical School and University of San Diego, California. Dr. W. Bisset, one of our senior registrars, is at present spending a year there, and on October 1st, 1968 Dr. J. I. M. Lawson took up the post of Associate Professor of Anesthesiology for one year.

A number of our junior staff have joined the brain drain. Dr. W. Martin emigrated from Dundee to Canada; Dr. Wendy Parkinson has also left Dundee for America, and Dr. Jennifer Barnes who was in Bridge of Earn Hospital is now in Canada.

Dundee is host to the Registrars' Meeting in November this year and the Scientific Meeting in May, 1969. The Neurosurgical Anaesthetists' Travel Club of the Scottish Society will also meet in Dundee in May, 1969.

EDINBURGH AND EAST OF
SCOTLAND SOCIETY OF
ANÆSTHETISTS

Syllabus 1968-69

1968

Saturday, 26th October

Combined Meeting with Glasgow and West of Scotland Society of Anæsthetists will be held in the University of Edinburgh Staff Club, Chambers Street, Edinburgh, at 5.15 p.m.

"Instrumentation and Monitoring"—Dr. J. M. M. Neilson, Department of Medical Physics, The Royal Infirmary, Edinburgh.

A Buffet Supper will follow the Meeting.

Tuesday, 12th November

Presidential Address—Dr. A. S. Brown.

Tuesday, 10th December

"Theatre Design"—Professor D. M. Douglas, Department of Surgery, The University, Dundee.

1969

Tuesday, 14th January

"The Sick Child Area"—Dr. G. Jackson Rees, Consultant Anæsthetist, Royal Infirmary, Royal Children's Hospital & Alder Hey Hospital, Liverpool.

Tuesday, 11th February

"Burns, Old and New"—Dr. C. M. Howie, Consultant Anæsthetist, Bangour General Hospital.

Friday, 28th February

Informal Dinner at the University Staff Club.

Tuesday, 11th March

Members' Short Papers.

Tuesday, 29th April

Annual General Meeting.

GLASGOW AND WEST OF
SCOTLAND SOCIETY OF
ANÆSTHETISTS

Syllabus 1968-69

1968

Thursday, 19th September

"Adventures in Anæsthesia"—Dr. Kofi Oduro, University of Ghana.

Saturday, 26th October, at 5.30 p.m.

Joint meeting in Edinburgh with Edinburgh and East of Scotland Society of Anæsthetists.

"Instrumentation and Monitoring"—Dr. J. M. M. Neilson, Department of Medical Physics, Edinburgh Royal Infirmary.

Monday, 2nd December

"Medical Electronics and Anæsthesia"—Dr. D. W. Hill, Research Department of Anæsthetics, Royal College of Surgeons of England.

1969

Tuesday, 7th January

"A Taste of Honey"—Dr. Alistair MacKenzie, Law Hospital, late of Kenyatta National Hospital, Nairobi.

Wednesday, 12th February

Members' Night.

Thursday, 20th March

Presidential Address—Dr. Hugh Y. Wishart.

Saturday, 12th April, at 10.30 a.m.

Visit to Glasgow Airport.

Wednesday, 16th April

Annual General Meeting.

Unless shown otherwise, meetings will be held at the Royal College of Physicians and Surgeons, 242 St. Vincent Street, at 8.15 p.m. Tea will be served from 7.45 p.m.

Notice of each meeting will be sent to members.

NORTH-EAST OF SCOTLAND
SOCIETY OF ANÆSTHETISTS

Syllabus 1968-69

Meetings are held at 8 p.m. in Aberdeen Royal Infirmary, Dundee Royal Infirmary, or in Stracathro Hospital, Brechin.

1968

Thursday, 10th October—Aberdeen

"Pneumatic Nonsense"—Professor John S. Robinson.

Thursday, 7th November—Stracathro

"Anæsthesia from the Coromandel Coast to Malabar"—Dr. Margaret Riddoch.

1969

Thursday, 27th March—Dundee

"The Air Transport of Patients with Respiratory Paralysis"—Wing Commander A. J. Merrifield.

Thursday, 15th May—Stracathro

Presidential Address—Dr. M. E. Tunstall.
Annual General Meeting.

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