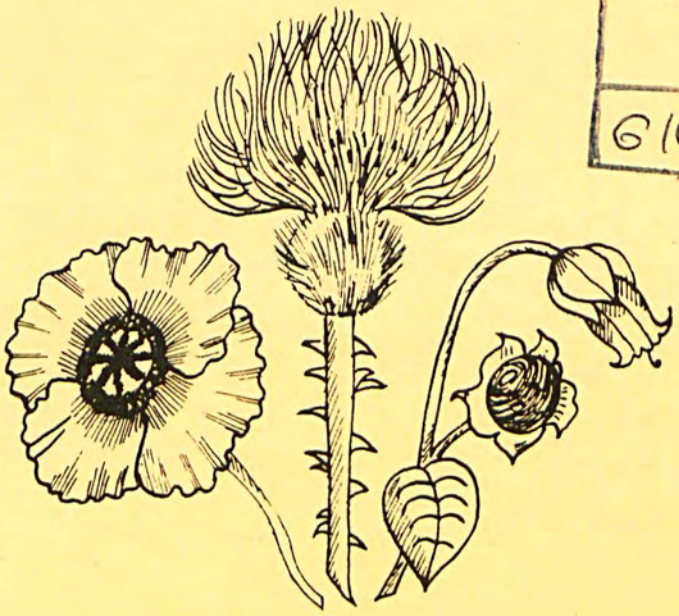
NEWS LETTER



THE SCOTTISH SOCIETY

OF ANAESTHETISTS

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20th February, 1914

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SCOTTISH SOCIETY OF ANAESTHETISTS

COUNCIL FOR 1981–82

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Regional Representatives

		Retires
Aberdeen	Dr. W.L. PARRY	1984
Dundee	Dr. I. GROVE-WHITE	1983
Edinburgh	Dr. I.T. DAVIE	1984
	Dr. J. WILSON	1982
Glasgow	Dr. A.G. MacDONALD	1982
	Dr. A. MELLON	1983
Inverness and the North	Dr. J. MACHIN	1983

PROGRAMME FOR 1982

REGISTRAR'S PRIZE: Entries to be submitted to the Secretary by 28th February 1982

ANNUAL GENERAL MEETING: Post House Hotel, Aviemore, 30th April/1st May 1982

REGISTRAR'S MEETING: Glasgow, June 1982.

SCIENTIFIC MEETING AND GILLIES LECTURE: Edinburgh, November 1982.

SCOTTISH SOCIETY OF ANAESTHETISTS

REPORT FROM STANDING COMMITTEE (SCOTLAND) OF THE FACULTY OF ANAESTHETISTS

The composition of the Committee has been altered by the retiral of Dr James Kyles and the election, in November, of Dr J I Murray Lawson and Dr D D Moir. Professor A A Spence was elected to the Board of Faculty in March and will continue to serve on the Standing Committee as a Board Member working in Scotland. Professor Donald Campbell, Convener of the Committee, has been elected Vice Dean of the Faculty.

Once again there has been an increase in the representative work undertaken by members of the Committee on behalf of Fellows in Scotland. The year has seen the publication of an important document on the future of the Health Service advisory structure, while the recent report of the House of Commons Select Committee on the Social Services (the "Short" report) attempts to redefine the very basis of the role of the colleges in the maintenance of professional standards. The Faculty and the College have given qualified support to the Short report although wary of the possible developments which might stem from it. For example, there is support for the overall position on quality control but reluctance to accept a transfer of the supervision of quality from the Colleges to the G.M.C. or to the Departments of Health.

The Standing Committee has been fully involved in the discussions which led up to the faculty statement on proposed examination changes, this topic being one of the principal items of a successful meeting of the Committee with REAs and tutors in Scotland at Edinburgh on 1st July

Alastair A. Spence

For distribution with 1981 NewsLetter

President's Newsletter

"Plus ca change"

Dr. J. Nunn, Dean of the Faculty of Anaesthetists, has commented upon the radical change which is occurring in the manpower position in anaesthesia so that we are leaving the ranks of the shortage specialities and may be facing a greater degree of competition for Senior House Officier posts while reducing Registrar posts and increasing the Consultant grade. Financial constraints by Government on the NHS and the cuts on Universities will undoubtedly affect the outcome.

This is indeed a period of change. The administrative structure and the medical advisory system are both under scrutiny. Without a major upheaval such as occurred in 1974 it is to be hoped that communications within the service can become more direct, that hospital administrators have more authority delegated to them in running their institutions so that there is less Functional Management, and that medical staff regain some of the standing lost to them since 1974. Anaesthetists have a part to play in Medical Staff Committees Multi-disciplinary Groups and in Area and National Committees.

The past year has seen major press and television coverage applied to the criteria determining death of a donor prior to organ transplant with predictable response on the part of the public. A notable legal precedent may mean that those working in, for example, Respiratory Intensive Care Units, will continue to make decisions with skill but also with humanity, without looking over their shoulders for medico-legal consequences.

The year has also seen the publication of proposals for alteration in the structure of the FFARCS diploma, prosposals which have stimulated discussion throughout the country. It may well be that the candidates planning to sit this examination will be the most affected by further plans – those of rebuilding or replacing several of the Scottish teaching hospitals where design teams are talking in terms of a time span of 25 to 35 years. Could this be a case of 'plus ca change plus la meme chose'.

The thanks of the Society go to Dr. Constance Howie and her colleagues at Bangour for arranging a successful and interesting Registrars meeting in June. Members were most hospitably received and the quality of the presentation was reflected in the large attendance.

It is a pleasure to express my thanks to Dr. Brian Slawson, Secretary, and other members of Council for their support and to the tolerance of the Editor in waiting for "copy" from a wayward President.

Editorial

In the last twelve to eighteen months two matters have occupied the attention, particularly of the Office Bearers, of the Society that have been the subject of persistent albeit intermittent debate for several years. With regard to the question of a different venue for the AGM there has been some success and that is reported elsewhere. The other matter is the possibility of an overseas visit by a group representing the Society.

This has now been the subject of several investigations in the last few years, all of which have failed to bear fruit for a variety of reasons in spite of a great deal of hard work. Attempts to go behind the "Iron Curtain" have been baulked, mainly by the slow reaction time of the bureaucracy of these countries.

A visit to North America was proposed to coincide with one or two major anaesthetic meetings. Provisional agreement with the American societies was reached and the likely expense assessed. However, the necessary support was not forthcoming. The main reason seemed to relate to the fact that it is not possible to travel (at times that one wants to quarantee) more cheaply than with "over the counter" package deals. If there is no financial advantage of going in a group most people seem to prefer to travel at times to suit them individually, rather than to go with the Society. A secondary factor was that it was unlikely that much in the way of "hospitality" would be provided. Any future suggestion for an overseas visit must take these factors into account because they probably apply to all parts of the world.

Registrar's Prize

The Society annually awards a prize of £60 for the best original paper submitted by an anaesthetist in Scotland, holding the grade of Senior Registrar or under. A second prize of £30 or a third of £10 may be awarded for other papers of particular merit at the discretion of the assessors. It is not necessary that the Registrar 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: acknowledgement to colleagues etc., should not be included.

The prize for 1980 was won by Dr. Alastair Chambers of Edinburgh Royal Infirmary for his paper "Spinal Anaesthesia with Hyperbaric Bupivacaine.

Annual General Meeting — Aviemore

24th — 26th April 1981

This year's Annual General Meeting was the tenth successive one to be held at the Aviemore Post House. The number of members staying for the weekend was once again down on the previous year, perhaps reflecting the general feeling throughout the Society that it is time for a change. In spite of that a very enjoyable time has had by all. The quality of service provided by the hotel was an improvement over past years and we were interested to hear that there are plans to improve the amenties, particularly the conference facilities.

The subject of an alternative venue was discussed at the A.G.M. and Peebles Hydro would seem to be the hotel with most to commend it. The view was expressed that we could lose as much as we gain by a move — many members enjoying their annual weekend in the highlands. It was suggested that the optimum arrangement would be to alternatie between Peebles and Aviemore and so gain the best of both worlds. Your Council have explored this possibility and are pleased (and a little surprised) to report that both hotels would be bery happy with this arrangement. So we shall be returning to Aviemore in 1982, but moving to Peebles for the 1983 meeting.

To return to this year's meeting the weekend took its usual form, with every event being a success. As usual our friends in the trade presented the prizes for the various sporting activities, with Drs. I. Gray and I. Kirkwood winning the Golf competitions and Dr. J. Straton the fishing. The papers that were presented at the meeting follow below.

PRESIDENTIAL ADDRESS

Dr. A.C. MILNE

MYASTHENIA GRAVIS

For a youth born in Hawick — a 'Teerie' — of Glaswegian parents, now working in Edinburgh after a spell of education in the North East, it is a privilege to occupy this position. My generation has provided a link between those skilled practitioners of the inter-war years who comforted us with "use gas, oxygen and ether and you will be alright!" and the Swan-Ganz wielding, computer experts of today. My chief, an orthopaedic surgeon, sent me, his house surgeon in 1946, to "find out about this material curare and give it to Mike". Mike had spastic paraplegia from spinal tuberculosis. Halothane had not been invented and spinals, before the shadow of Wooley and Roe fell upon the landscape, were in their heyday. We have seen the setting up and running of Intensive Care Units by Anaesthetists, and the acceptance of this by Physicians and Surgeons.

My domain, which you compliment by your choice of President, lies dotted about south Edinburgh — The Elsie Inglis Maternity, Deaconess, Longmore, Bruntsfield and City Hospitals, with the maternity hospital being as far removed as is possible from the parent City Hospital! The latter houses both the regional E.N.T. Department (carrying out 5,000 operations per year, over 300 using Induced Hypotension) and the regional Thoracic Unit (dealing annually with 500 Pulmonary, Oesophageal or Closed Cardiac procedures, 1400 endoscopies and some 50 patients receiving I.P.P.V.). Out of that conglomerate it bethought me that it would be interesting to review a small, mostly non-malignant group where knowledge of aetiology is developing in whom reasonable results are obtained — patients with Myasthenia Gravis.

Myasthenia Gravis has been recognised since 1672 and an association with the Thymus noted from post-mortem studies. The first thymectomy was performed in 1912 and, following the work in the 1930's on acetylcholine and the neuro-muscular junction, Mary Walker described

the dramatic effect physostigmine had on the disease.

The Thymus is developed from the third branchial pouch and is necessary for the development and maintenance of the lymphoid system, especially in the young. It secretes a humoral factor essential for lymphopoiesis in its own cortex and in the developing lymph nodes and spleen. It makes an important contribution to the pool of immunologically competent cells:- T_1 lymphocytes become T_2 lymphocytes which have acquired the mantle of activity in the immune process. In auto-immune disease immune activities are stimulated by the patients own defences and mount a self destructive attack.

Myasthenia gravis occurs at the rate of 5–8 per 100,000 of the population – one General Practitioner in his practice life may not see a case. It is a chronic, auto-immune disease characterised by undue fatiguability and weakness of voluntary muscles which gradually recover on rest. The muscles are extremely sensitive to non-depolarising relaxants. This disease is one of post-synaptic function as opposed to the myasthenic syndrome, botulism and antibiotic

MYASTHENIC SYNDROME	MYASTHENIA GRAVIS
1. Peripheral muscle weakness	Peripheral and bulbar muscle weakness.
2. Always associated with bronchial carcinoma.	Rarely associated with bronchial carcinoma.
3. Very sensitive to depolarizing drugs.	Resistant to depolarizing drugs.
4. Muscle power *improves* temporarily with exercise.	Muscle power *fatigues* steadily with exercise.
5. Electromyography:	
A characteristic "growth" of the action optential.	A characteristic "fade" of the action potential.
Small voltage single "Potential"	Large voltage single potential.
Muscle biopsy:	
Non-specific degeneration of motor end plates.	Specific pattern of disintegration at motor end-plates.

effect which are pre-synaptic in action Neo-natal myasthenia gravis occurs in 1 in 8 babies born to myasthenic mothers, but the disease clears in three weeks.

The ocular muscles are first affected, giving rise to double vision and drooping eyelids. Mild cases can stay that way or the disease progresses to involve the muscles of chewing, of the shoulder girdle, of legs, and respiratory paralysis can ensue. Patients have been seen towards night time propping their jaws up with their hands and chewing by hand. Remissions do occur.

Acetylcholine recognition sites on the acetylcholine receptor have been identified by the snake venom alpha bungarotoi and in myasthenia gravis the sites in the post-synoptic membrane are less numerous and distorted (elongated). The minature end plate potential and the end plate potential are abnormally small.

Loss of acctylcholine receptor can be attributed to an AChR antibody, an IgG antibody which is detectable in 85–90% of myasthenic patients with generalised disease. The antibody combines with complement and this process leads to lysis of the receptor. The antibody is specific for myasthenia gravis, correlates with the individual and, of course, is the opposite of protective. The condition may be associated with other immunological disorders.

The Thymus is abnormal in 80% of cases. Most commonly (60%) there is hyperplasia and classically these patients are female and under forty. In the over forties the usual pathology is involution and the sex-ratio is equal. A thymoma is present in only 10% of patients with Myasthenia Gravis, and may be associated with cytopenia, polymyositis, hypogammagloubulinaemia and Sjogren's Syndrome. The majority of thymomas present in other ways. In most it is a chance finding on a routine chest X-ray, and though symptomless, presents an irresistible challenge to the surgeon's skill! A few are referred with a history due to pressure on adjacent intra-thoracic organs.

Treatment

Pharmacological: Since the work of Mary Walker this has been with neostigmine and pyridostigmine. By the time the patients come to surgery there does seem to be more trouble with over-rather than under-dosage. The drugs can have a myasthenic effect by decreasing the number of functional receptor sites.

Immunological: This can be with steroids, immunosuppressives, plasma exchange and irradiation. Professor Newsam Davies describes a series of ocular myasthenia treated with prednisolone, and out of 12 cases there were 8 remissions, 3 were markedly improved and 1 had minimal improvement. I have no experience of the use of azothioprim or plasma exchange which

passively removes antibody, but the Massachusetts General Hospital report the case of a man brought in indire straits who, after six plasma exchanges, was able to drive his own car! Plasma exchange buys time to prepare patients for operation.

Thymectomy: What does the operation do? There are two populations:-

(a) Patients with Myasthenia Gravis, and referred for thymectomy as an adjunct to medical treatment since the operation leads to a reduction in antibody titre. Since thymic cells travel to aid production of antibody elsewhere in the reticulo-endothelial system, removing the thymus is slow in having its effect because these migrant cells have a long life and take time to clear. However the operation will not make the position worse and will eventually produce a reduction in neostigmine dose or a better response.

(b) Patients with Thymoma, and referred because of the effect on surrounding tissues as much as for Myasthenia, which is rarely present. Thymectomy for thymoma gives a poor result in terms of myasthenic symptoms, but these patients often respond well to immunosuppression.

Anaesthetic Management

The patients may come in myasthenic or cholinergic crisis. It is not always easy to clear the situation even with "Tensilon." Patients may require artificial ventilation before reaching the thoracic unit, or it may be instituted pre-operatively. The patients are premedicated with diazepam or morphine and the cholinergic drugs are stopped. We induce anaesthesia with thiopentone and maintain it with nitrous oxide, oxygen and phenoperidine or halothane. The patients are very easy to ventilate and very sensitive to the non-depolarising relaxants. If necessary we intubate using suxamethonium, but have not had the courage of Wylie and Churchill-Davidson and rested the end-plate by curarising the patients!

The operation is by median sternotomy and the thymus taken out. If one or other pleural cavity is opened, a chest drain is inserted. A suction drain is put under the sternum. The patient is returned to the ward and formally ventilated for anything from 24 hours to 1 week. Pain is well controlled. Depending on the patient and power of grip a time is chosen to set up an intravenous infusion with neostigmine, atropine and propanthelene. This is adjusted to give 1 mgm neostigmine per hour. The patient is extubated and once swallowing has restarted oral medicines can be given and the intravenous infusion slowed. We are quite happy if the patient leaves the unit still on substantial doses of neostigmine – they may be reduced later. In common with other centres we believe that those patients with myasthenia gravis who are *young, female, have a short history* and are found to have *hyperplasia* are the patients who do well.

We have no experience of the procedure being carried out by mediastinoscopy. It is difficult enough on occasion to find the Thymus at sternotomy! Other problems with diagnostic mediastinoscopy – bleeding, tumour sprouting out of the incision – give pause for thought.

One final point. Post-operatively the dosage of neostigmine can be influenced by other factors. Infection is one such problem. Increased dosage in a patient was a puzzle until the release of a large volume of pus from below the sternum gave relief to patient and attendants!

What can we derive from all this for patients who turn up elsewhere requiring anaesthesia and surgery? These patients are very sensitive to non-depolarising relaxants, which if used inadvertently will mean the patient being in a respiratory intensive care unit for some time. In any case, for anything but minor surgery, we should be prepared to ventilate the patients post-operatively to rest the end-plate and control pain. It is easy to control ventilation without relaxants and allow surgical access. If essential suxamenthonium can be used. The protagonists of regional and field blocks will press their claims, remembering that reduced numbers of receptor sites and use of annti-cholinesterases will modify their dosage.

Summary

In patients with minimal symptoms, or ocular effects only, treatment should be with anti-cholinesterases and prednisolone. In the more advanced, but young and fit cases thymectomy should be undertaken and followed with anti-cholinesterases as necessary. If their is a poor response to surgery then immunosuppression should also be tried. In the less fit, advanced case this latter therapy should be tried first, with plasma exchange being used in an attempt to prepare the patient for surgery if this becomes necessary.

Abnormalities of the thymus have been known since 1672 and the first thymectomy was

performed in 1912. It may be that advances in neurophysiology, immunosuppression and pharmacology will render surgery unnecessary, but compared to the sombre figures for bronchial and oesophageal carcinomas, those for myasthenia have meant that it has been fun to be around:

"The night shall be filled with music
and the cares that infest the day."

GUEST LECTURE

Dr. P.W. THOMPSON

THE FIRST 30,000 – DENTAL ANAESTHESIA IN CARDIFF

To many people a series of 30,000 dental anaesthetics may seem a rather boring subject to choose as the topic of a Guest Lecture. It is always hard to give reasons when one has an emotional attachment to a subject, but I think mine are these. First of all there is a grave fear of dental anaesthesia which seems quite disproportionate to the average patient's approach to an inpatient operation. This fear may be enhanced by memories of childhood when a visit to the dentist left a frightening impression. The patient seems to view the dentist, and probably the dental anaesthetist, as an undoubted monster and it is a surprise to many that we do not all have horns!

Secondly, dental anaesthesia is important because of the vast numbers that are given. The table shows the numbers given during several years

NUMBER OF GENERAL ANAESTHETICS General Dental Services (England)	
1963	1,350,000 (estimate)
1969	1,157,000
1975	998,000
1977	833,000

under the general dental services (thus excluding those in hospitals, private practive and school clinics) in England. There has been a steady decline in numbers, which may be related to improved dental health, increased reliability and acceptability of local anaesthesia and increased awareness of the risks of general anaesthesia. It is worth noting that the financial costs of these anaesthetics is relatively small – £2,107,000 for 833,000 in 1977. It is hardly surprising that the size of the average fee has often been blamed for the unwillingness of consultant anaesthetists to participate in this type of work. This may also contribute to the decrease in numbers given.

The steady decline in numbers has been accompanied by an even more marked fall (for which we all give thanks) in the proportion given by operator/anaesthetists. In 1976, the latest year for which I have been able to find figures, the proportion was 6.6%; a considerable improvement on the 24% of 1965.

I also feel that, as a landmark in an anaesthetic series, 30,000 has an air of respectability about it since it is the number that I remember reading was attained by Sir James Young Simpson.

My final reason for choosing this topic is that we have been particularly fortunate in Cardiff because we were a completely new dental school in a completely new building. Since both were planned and developed in the presence of an existing Professorial Department of Anaesthetics we were able, from the very beginning, to establish our criteria on anaesthetic management rather than having to seek to alter an existing, but unsatisfactory, state of affairs.

This paper is a report of some of our statistics which hopefully may give factual answers to some of the questions which are so often hotly debated, and about which opinions are frequently firmly held on very flimsy foundations. If for only one contentious issue we can substitute evidence for emotion the effort will not have been wasted – and it has been an effort! To ensure that 30,000 consecutive records have been filled in and checked (we have no clerical assistance for this) really is a labour. I must acknowledge major contributions made by my consultant colleagues Drs. M. Rosen, L.T. Rees and J.N. Horton.

We have had real help from our Department of Medical Statistics in transferring the information from the records to Hollerith punchcards originally, and to the records computer for the last 6 years or so. The records are kept on a simple form which, because it is a no-carbon

write-through, is not cheap, but can be filled in a matter of seconds. The back page is bound into the patient's folder and the top page is kept for analysis.

Most of our cases are 'booked' in that they come by appointment after referral by general dental practitioners or from special clinics such as Orthodontic and Children's. A few are 'casuals' sent round to us after being seen in the Examination Clinic. On arrival, to the surprise of other anaesthetists (and certainly some of the patients!) they are examined. We would never pretend that this is a comprehensive examination, but the patients are asked simple straightforward questions about their health, current treatment and when they last had anything to eat or drink. The chest is examined, looking particularly for signs in the cardiovascular system which might indicate a need for antibiotic cover.

The overall results of our pre-operative assessment show that 29% of our patients had a factor which was regarded as relevant to the anaesthetic. 7.5% were considered to be major. No one would suggest that such a figure would occur in general dental practice since it is clearly loaded by referral of problem patients from elsewhere. As might be expected these complications were made up of respiratory (28% – quite often minor ones like upper respiratory tract infection), cardiac (19%), apprehension (28%) and central nervous system (26%) problems. We think that in an unscreened population it is foolhardy to rely on the casual question. I should point out that we are anaesthetising on an outpatients basis many patients who would be regarded by some, if not a majority of, anaesthetists as basically unsuitable for outpatient treatment even in 'best' surroundings. However, it must be remembered that the sheer numbers of cases referred to us would be more than enough to occupy all the beds allocated for oral surgery in the Cardiff area several times over.

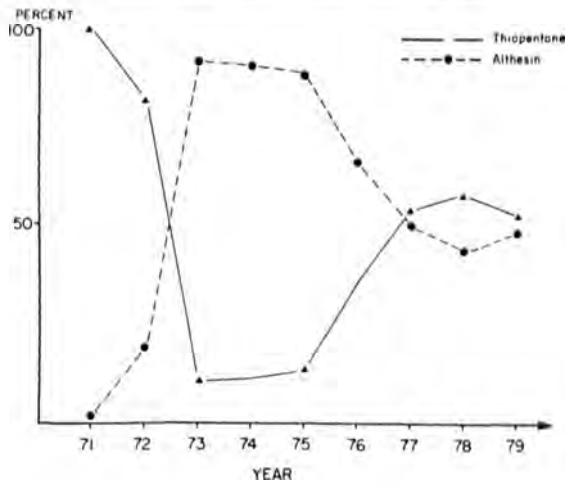
The examination completed, the surgeon having explained the nature and extent of the extractions to the patient, or parent, and the consent having been signed, we move to the anaesthetic. All patients are anaesthetised in the supine position. When we opened the Dental School in 1966 this was true of very few, most of those being day cases, but within 5 years we had achieved 100%. The use of this position eliminates the risk of an unexpected fall in blood pressure, the 'fainting' described so clearly by Bourne. The supine position is often criticised on two counts. Anaesthetists not infrequently experience some initial difficult in maintaining a clear airway while oral surgery is being carried out. However, I have yet to meet one who after relatively short experience has not found it as easy, if not easier, than the sitting position. It is certainly less tiring since the anaesthetist can support his elbows on the trolley. Surgeons also contend that it is not as easy to extract lower molar teeth when working in this position, but, again, we find that this is just not true. If the surgeon and anaesthetist come to an amicable arrangement whereby, in the case of a right-handed surgeon and lower right molars, he works from above, extraction is positively facilitated.

In 79% of all patients induction is with an intravenous agent and this is followed in 71% by maintenance with nitrous oxide, oxygen and halothane or ethrane administered through a standard McKesson nasal mask. We find no particular problem in giving intravenous agents to small children. The child sits on mother's lap with its hand tucked around her back so that nothing is seen.

For unpremedicated patients, many of whom are children, intravenous methohexitone has never found great favour with us because of pain on injection in about 1.5%. The choice has lain mainly between thiopentone and Althesin. The curve in Figure 1 shows the typical course of the

DENTAL OUTPATIENTS ANAESTHESIA

INTRAVENOUS AGENTS IN DENTAL PRACTICE



introduction of a new drug. On its appearance acceptance was cautious, but as enthusiasm grew

its usage increased until in 1973 over 95% of our intravenous inductions were with this agent. This figure was maintained until the first reports of serious reactions appeared, and after there had been local experience of this, use declined to the present figure of about 50%. I am probably one of the main contributors to this usage because I find the drug has some clear advantages. It does not give rise to pain on injection, appears to be very acceptable to the patients and I have no anxieties when a small amount is injected subcutaneously by an overenthusiastic student. Finally it finds a place because it is possible to achieve abolition of reflex response to the extraction of one or two teeth without depression of respiration.

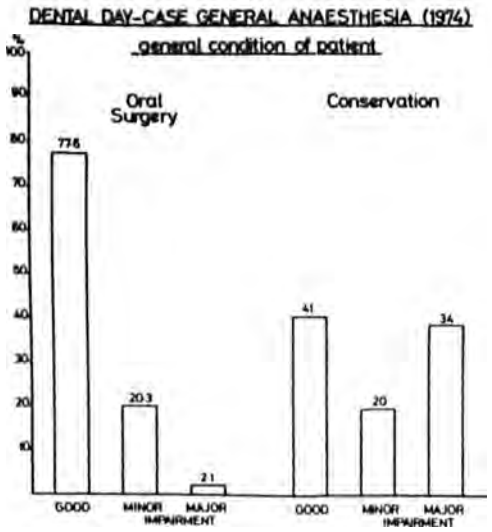
From time to time we get patients who have had an anaesthetic a week or so before, perhaps after a road traffic accident or for a failed extraction in a dental practice. We feel it safer to avoid repeating halothane at short intervals and keep a separate breathing system for the administration of ethrane to those patients.

As you might expect the duration of anaesthetics is relatively short (less than 10 minutes in 75%), but it is our basic policy to complete the surgical programme and a considerable number of cases would no doubt be treated as day cases, if not in-patients, in some centres. Postoperative stay is usually less than an hour. We judge the fitness of the patient to leave by general assessment and questioning, by the ability of those accompanying them to cope and by the ability to stand and walk without obvious imbalance. Any patient who cannot demonstrate that they will have an effective escort is not treated. Now and then a patient may slip through this net and is found in the waiting room buttoning on leathers and a crash helmet prior to riding a motor-cycle home!

I would now like to consider day cases — a category of which we do a considerable number (about 400 out of an annual case load of around 2,000). We define these as patients who come prepared for anaesthesia early in the morning, are dealt with during the morning and who leave for home at about 2 p.m. Most are for oral surgery as we find that one session (2–3 cases) per week keeps abreast of the demand for conservation. That session alternates between the adult conservation and the children's/mentally - handicapped clincs.

We began day cases some years ago as an attack on a steadily growing waiting list since there was a 6½ month wait for inpatient oral/surgery and we calculated that it would extend to 10 months. Recently we looked again at our waiting times and found a dramatic reduction for both day and inpatients. One session a week meets the demand for conservation, the waiting time for which is under 2 months.

The general condition of patients for day surgery is worthy of comment. For oral surgery



the incidence of complicating factors is perhaps a little better than the average, but it is very different indeed for conservation. This is not surprising when you remember that this type of work is often undertaken for full month restoration in a severely mentally-handicapped child.

This leads me on to discuss the indications for general anaesthesia for dental conservation. These are generally recognised to be mental handicap (55%), apprehension (21%) and surgical (24%). These are real indications, but I would like to remind you that in 1967 the report of the Select Committee on Dental Anaesthesia cited evidence supporting the view that every patient requires a general anaesthetiec for conservative dentistry. The conclusion of the Committee itself was that there was a need for this in 5% of patients. The figures from Cardiff (and I hasten to add that no request is refused) show a demand for general anaesthesia of something like 0.01%. Even if all these patients came from the mentally handicapped clinic the requirement rate would

only be 2.3% of such patients so where is the need for 100%, or in best hands even 5%? Of course this figure could not be attained in every situation for we are particularly fortunate in having an inspired Children's Department which is willing and able to devote a disproprotionate amount of time to the 'education' of difficult children.

The anaesthetic management of our day cases is simple in the extreme – an intravenous induction, intubation after inhalation of halothane or administration of suxamethonium (which may or may not have been preceded by a small dose of gallamine) and maintenance with nitrous oxide, oxygen and halothane. Once the mouth has been opened and the prop inserted no relaxation is necessary and it is quite surprising how little halothane is required for these patients even though they have had no premedication. We never undertake a day case except on the clear understanding that a bed will be found by the oral surgical department should the anaesthetist request it. Between 1966 and 1974 there were 29 postoperative admissions following day case surgery (a rate of 0.9%) and only 8 of these were for anaesthetic reasons – usually delayed recovery. I hope that you will agree that the anaesthetist are not doing too badly!

Finally I would like to consider postgraduate instruction in anaesthesia for dentists. From the beginning we have had a house officer in anaesthetics/examination who spends six sessions a week in the general anaesthetic department. It was our idea that we would, every year, inject into practice two dentists trained in the basic skills, and relatively well-versed in the theory, of dental anaesthesia. Alas our hopes have not been fulfilled. It is not that the holders of the post have not acquired the skills or the knowledge, but that they have failed to continue to give anaesthetics. Not long ago I followed up the first 24 holders of this post and only three are giving any at all, and then no more often than one per week. Have we done a good turn by discouraging these potential dentist-anaesthetists from undertaking work, or a public disservice by teaching them enough to frighten them off?

In this presentation I have attempted to give you some idea of what has been going on in one dental hospital with an active anaesthetics department. I have discussed preoperative assessment, our basic techniques, the benefits of day case surgery on waiting lists and its freedom from anaesthetic sequelae, looked at the requirement for general anaesthesia for conservative dentistry, and finally considered the outcome of our training dentists in anaesthesia for six months.

I would like to think that, if nothing else, we have engendered in our patients a little less mistrust that is usual and at the same time have produced some valid figures on certain controversial matters. We hope that the conclusions which we draw from them will enable us to continue our intention to pursue the maxim of the great Hebrew teacher Maimonides:–

> "May there never develop in me the notion that my education is complete, but give me the strength and leisure and zeal continually to enlarge my knowledge".

REGISTRAR'S PRIZE

Dr. A. CHAMBERS

SPINAL ANAESTHESIA WITH HYPERBARIC BUPIVACAINE

One of the factors preventing greater use of spinal anaesthesia in this country is the lack of a readily available local anaesthetic agent suitable for the purpose[1]. Their have been difficulties over the availability of cinchocaine[2] and it does not withstand repeated autoclaving. Mepivacaine is of relatively short duration and has diffusion and permeability properties that occasionally result in unexpectedly high blocks[3].

Bupivacaine hydrochloride (Marcaine) is an amide local anaesthetic (similar to mepivacaine in that two circle systems are directly connected) that has been used extensively for most forms of local anaesthesia. It is very stable and can withstand repeated autoclaving the boiling. Because of that is has become used increasingly for spinal anaesthesia in the ordinary 'isobaric' solution. Since most agents used for spinal anaesthesia are available in hyperbaric solution we recently conducted a study to compare solutions of bupivacaine of different baricities and found that 0.5% bupivacaine in 8% dextrose was

sutiable[4]. This paper reports our further studies on the effects of different concentrations of bupivacaine and of different volumes of solution.

Fifty-seven patients undergoing lower limb, perineal or transurethral prostatic surgery consented to the study. After premedication with oral diazepam (10mg) a lumbar puncture was performed in the lateral horizontal position. Groups of 10 patients were allocated randomly to receive either 2ml, 3ml, or 4ml of 0.5% bupivacaine or 1.3ml, 2ml or 3ml of 0.75% bupivacaine, both in 8% dextrose. After injection the patients were turned supine and for 30 minutes assessments of sensory loss, motor block in the legs, heart rate and blood pressure were made at 5 minute intervals. The patients were then positioned for surgery, but during and after this further assessments were made of the sensory loss and motor block at 15 minute intervals.

With the 0.5% solution volume of injection appeared to have a greater influence on duration than on height of block (Figure 1). None of the slight differences in mean block between the three volumes was significantly different at any time. All three volumes produced mean maximum blocks to T_{4-5}. Duration increased with increasing volume, both 3ml and 4ml lasting significantly longer than 2ml.

In contrast increasing the volume of 0.75% solution resulted in progressively higher mean block (Figure 2). This was to T_7 with 1.3ml, T_5 with 2ml and T_2 with 3ml. 3ml produced such high blocks that its use was eliminated after 7 patients had received it. Duration also increased with increasing volume.

Both solutions of hyperbaric bupivacaine gave consistently good spinal blocks. In extradural use 0.75% bupivacaine offers certain advantages over 0.5%[5] and one of the aims of this study was to see if this was true for subarachnoid blocks. These results did not show any advantage in the use of a higher concentration, large volumes of which may even be dangerous. Further studies will be needed to determine whether the same is true for isobaric solutions of bupivacaine.

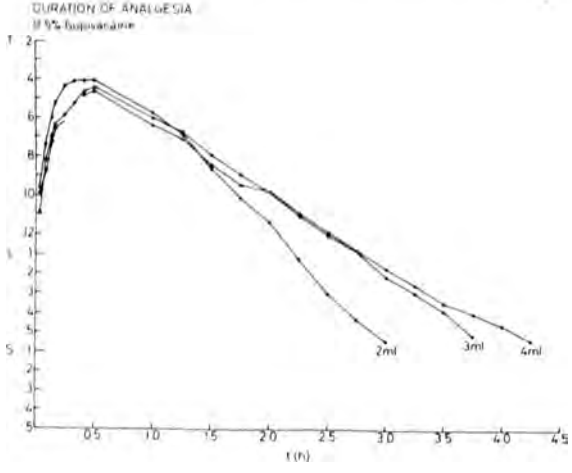


Figure 1

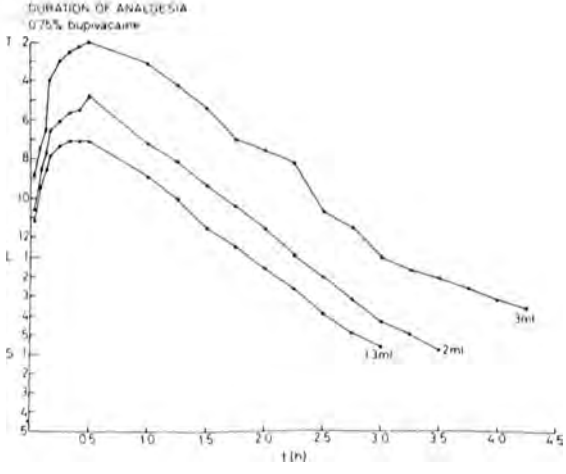


Figure 2

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Registrar's Meeting

BANGOUR GENERAL HOSPITAL, BROXBURN – 19th June, 1981

Bangour General Hospital, Broxburn, West Lothian was the venue for this year's Registrar's Meeting. We were welcomed by the President, Dr. A.C. Milne, and following coffee the programme began with a series of clinical demonstrations and tutorials by members of Bangour's Consultant Staff. Subjects covered included day case anaesthesia (Dr. W.A. Brown), CO_2 monitoring and anaesthesia for cystectomy (Dr. H. Turner), and the use of a variety of agents in induced hypotension (Drs Kay and Grace). Among the points raised in discussion were the use of epidural opiates, the fact that continental anaesthetists regard a CO_2 monitor as virtually essential and the bravery of pharmacists who produce intravenous nitroglycerin from the explosive preparation! A visit to the Burns Unit was conducted by Dr. Howie and Miss Sutherland.

Sherry in the recreation hall preceded an excellent lunch which was generously provided by the West Lothian District and prepared by the hospital catering staff. Lunchtime conversation for many of those present centred on the coming FFARCS papers, but the generous allocation of wine seemed to convert the air of impending doom to one of resignation, if not actual enjoyment!

The afternoon programme consisted of a session on a variety of topics and one on spinal anaesthesia.

Dr. C. Small gave an account of his experiences as a member of parenteral nutrition team in Bangour. Important points emphasised were the need for sterility, proper selection of patients and the expertise gained in all aspects of this important subject by the use of a committed team approach. Miss A.B. Sutherland, consultant plastic surgeon, discussed the use of nasogastric tube feeding in burns patients. The metabolic and increased catabolic problems were outlined and the value of a team approach again emphasised. The overall impression of the day was that Bangour General can feed you more than adequately by any route!

Mr. A.A. Gunn, consultant general surgeon, then gave an enlightening and amusing account of the use of computers in the diagnosis of abdominal pain. The value of the system in the training of junior staff was emphasised and the results of its use presented. Such systems have many advantages, but the most important step in their use remains with the medical staff – ask the right questions and ask all of them. The final talk in this session was by Dr. Jane Freshwater, part-time senior registrar, who discussed pharmacogenetics and the anaesthetist. Despite the constraints of time she gave a clear and detailed account of some of the more important syndromes and provided a detailed list of references.

Tea was followed by a symposium on spinal anaesthesia presented by a team from the Royal Infirmary of Edinburgh under the chairmanship of Professor Robertson. Dr. D.T. Brown, lecturer, presented the results of a trial on the effect of baricity and dose on the spread of spinal anaesthesia. Dr. J.H. McClure, lecturer, discussed the effects of posture on the spread of isobaric and hyperbaric solutions. Dr. A. Chambers, senior registrar, then described the effects of vasoconstrictors on duration of block. Finally Dr. J.A.W. Wildsmith summarised the findings of this recent research and went on to discuss its application to normal anaesthetic practice. A lively discussion followed with many points being covered.

Once again the Registrar's Meeting proved a success. Every topic covered was of interest and of relevance to the FFARCS exam and more than one actually appeared in the examination. Thanks are due to the Scottish Society, Bangour Hospital and to Dr. C. Howie and all her colleagues for a stimulating meeting.

D. McKeown

Scientific Meeting

ROYAL INFIRMARY, ABERDEEN – 20th November, 1981

This year's scientific Meeting was held in the Medico-Chirurgical Hall at Aberdeen Royal Infirmary. The meeting was organised by Dr. W. Parry and attended by over 90 anaesthetists. The President of the Society chaired the meeting. The morning session was taken up by a symposium on "Some physiological and medical aspects of Hyperbaria and Hypothermia" with speakers from Aberdeen University's Departments of Anaesthesia and Physiology, and from the Institute of Environmental and Off-Shore Medicine: The speakers gave a fascinating insight into the problems of living and working on and under the North Sea, particularly in relationship to dealing with medical problems of extremes of pressure and temperature, and of the methods being used to solve these problems.

After an excellent luncheon, Dr. M. Tunstall described the use of his isolated forearm technique as a method of comparing the incidence of awareness during Caesarean Section with a variety of anaesthetic techniques. He then showed a film of this technique in use. Lively discussion followed all of these presentations, indicating the level of interest in the subjects.

The final part of the meeting was the now traditional Gillies Lecture, this year given by Professor J.D. Robertson of Edinburgh University, who was Dr. Gillies' successor as Head of department. Professor Robertson gave an intriguing and entertaining account of the problems in the practice of anaesthesia for royal patients. He compared the experiences of John Gillies in the case of the operation for lumbar sympathectomy on King George VI in 1949 with those of Frederic Hewitt for the appendix operation on King Edward VII in 1902.

MEDICAL INTERVENTION: TRANSFER UNDER PRESSURE — Prof. J.N. NORMAN

When a diver becomes injured or sick while in the saturation mode the main problem is accessibility both for diagnostic and treatment purposes. In the first instance the divers must be taught to care for themselves and to state the nature of their problem so that it can be passed along a communication system for medical advice. If the condition is serious and requires medical intervention the medical team can either enter the offshore chamber – which is small and bacteriologically dirty – or the patient can be transferred at the atmospheric pressure of the offshore chamber to a large chamber ashore, specially equipped for surgery in divers. This is achieved by the use of a series of small chambers built of titanium to provide the strength necessary in association with the lightness required for helicopter transfer, since a full life support system including the heliox mixture in use, CO_2 scrubber, heat source, etc., is needed. The decision on the most appropriate technique to use for the management of a particular patient will usually rest with the stability of the clinical condition. Sudden deterioration during the several hours which transfer takes would be difficult to manage in the transfer chamber because of its size. For this reason the transfer at pressure system is reserved for divers in a stable condition or with a diagnostic problem and it still seems necessary for a team to enter the offshore chamber for the management of a life threatening condition or one which may be subject to sudden change.

THERMAL PROBLEMS DURING ANAESTHESIA IN HYPERBARIC HELIOX — Dr. V. FLOOK

This paper presented preliminary results describing the thermal problems likely to arise in anaesthetised subjects in hyperbaric helioux. A mathematical model of heat production

and transfer from the human body was used and a summary was given of the measurements from 52 divers at depths to 300 MSW which were used to test the accruacy of the model.

The physiological changes which occur in anaesthesia are not fully documented but calculations were made to take account of the reduction in Basal Metabolic Rate known to occur; the increased ventilation above basal level common during artificial ventilation and the change in tissue heat conductivity which occurs because of the vasodilatation common during anaesthesia.

A 15% reduction in BMR would require an increase in environmental temperature to prevent the patient losing heat. The increase needed is about 7°C at 50 MSW dropping with depth to almost 4°C at 300 MSW. This would cause considerable discomfort to the operating team. The alternative is to allow the patient to cool at a rate of 1°C change in mean body temperature in about 8 hours.

A minute ventilation of between 12 and 15 litres would require the environmental temperature changes to be increased by an extra 60% of the values given above or would result in a mean body temperature drop of 1°C in about 5 hours.

Vasodilatation resulting in a relatively small increase in tissue heat conductivity to twice the normal value increases the rate of drop of body temperature to 1°C in 30 minutes. This cannot be prevented by an increase in environmental temperature. If this a realistic estimate of the conductivity change then anaesthesia in hyperbaric heliox will not be possible unless a substantial part of the patient's surface can be covered with a high insulation covering.

A TECHNIQUE FOR EVALUATION OF RESPIRATORY HEAT EXCHANGES AT SIMULATED DEPTH

R.H.M. DINGWALL

In the "lost bell" situation support services such as power and hot water are severed. The immediate threat to the diver is one of body heat loss. At a depth of 150 m sea water and with inspired gas temperature at 7°C it has been reported (Goodman et al, U.S. Navy; ONR-NOO 014-71-C-0099 (1971)) that 47 watts can be lost from the respiratory tract at resting minute volumes. This represents a significant avenue of heat loss.

Heat lost through the respiratory tract can be minimised by breathing through a heat exchanger. We have developed and constructed a breathing simulator which can be used at hyperbaric pressures to compare the efficiency of the devices. Tidal volume, respiratory rate and I/E ratio are controlled external to the chamber. Inspired and expired gas temperatures are measured by quick response thermocouples. This model has been validated at sea level and at simulated depth.

Data of gas temperatures within the system, with and without heat exchangers, will allow these devices to be ranked in order of their thermal efficiency.

It is likely that divers in a "lost" and cold diving bell will have increased metabolic and respiratory rates as a result of shivering. In our system it is possible to produce a wide range of respiratory rates, tidal and minute volumes and to add CO_2 to the breathing circuit so that the increased levels of metabolic and respiratory rates can be simulated.

ANAESTHESIA AT HIGH PRESSURE

Dr. C.R. DUNDAS

High pressure work requires the use of helium as a breathing gas since nitorgen narcosis causes problems if air is breathed at more than 6 atmospheres absolute. A medical team at high pressure would experience the usual effects such as the high pressure neurological syndrome, compression arthalgia, otitis externa and speech distortion.

Apparatus can be damaged by compression and if helium diffuses into closed spaces can explode during decompression and sterility would be virtually impossible.

Decompression would be likely to be prolonged if performed in company with a patient and for this reason medical attendants would seem to be unlikely to experience decompression sickness.

The use of gases or vapours for anaesthesia at pressure would be impossible largely because of the phenomenon of counter diffusion supersaturation.[1, 2]. Local and regional analgesia do not present an attractive alternative to general anaesthesia mainly because of the danger of introduction of gas to tissues or anatomical spaces and the problems of hygiene and sterility.

Intravenous anaesthetic techniques[3] have been described which would be suitable but there is still uncertainty as to the interaction of pressure and some of their effects. Evidence was presented from experiments on seven volunteer divers that pressure antagonism of the action of Althesin would be expected but would not greatly increase the necessary dose.

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EFFECT OF HYPERBARIC PRESSURE ON NEUROMUSCULAR FUNCTION AND MUSCLE RELAXANTS IN INTACT RATS

Dr. J.D. MacKENZIE

Isometric muscle contraction in tibialis anterior following supra-maximal indirect stimulation was measured in Sprague Dawley rats pressurised in a Heliox mixture up to 35 ATA. Other parameters monitored included rectal and muscle temperatures by thermistor probes, blood pressure by an electromagnetic transducer, oxygen by a paramagnetic analyser and carbon dioxide by an infra-red spectrometer.

Evidence was presented that the developed tension and work performed by the muscle were both increased by hyperbaric pressure. The increase was linearly proportional to the pressure applied.

When these effects were taken into account in the dose response curves for muscle relaxants it was shown that an increased dose of neuromuscular blocking agent would be necessary at greatly increased hyperbaric pressure.

No effect was demonstrated on the duration of action of muscle relaxants at hyperbaric pressure.

HYPOTHERMIA – A CASE REPORT

Dr. F. MacLENNAN

A seventeen year old girl was admitted, having taken an overdose of tricyclic antidepressant drugs. Her core temperature was 23.5°C. She was deeply unconscious, making occasional respiratory efforts. Her pupils were fixed and dilated, no blood pressure or pulse was recordable. E.C.G. showed occasional ventricular complexes but asystole developed soon after admission. Cardiopulmonary resuscitation was performed until extracorporeal circulation was established by the femoro-femoral route. Rewarming to 36°C. on bypass took two hours. Ventricular fibrillation occurred at 28°C. reverting to sinus rhythm at 30°C.

From theatre she was transferred to intensive care where her initial problems were pulmonary oedema and grand mal convulsions. She remained intubated and ventilated.

Consciousness returned on the fourth day and initially her chest improved but subsequently deteriorated, the patient becoming pyrexial. Radiologically dense opacities appeared in both lungs fields. Arterial oxygenation also deteriorated despite vigorous antibiotic therapy and her condition gave cause for some alarm. Improvement thereafter was gradual. She was weaned from the ventilator with the aid of continuous positive airway pressure and extubated on the fourteenth day after admission.

Spontaneous pneumothoraces were a problem after extubation necessitating bilateral pleural intubation and poudrage on several occasions.

Eight months later pulmonary function is still abnormal but much improved. There is still a small left apical pneumothorax. Symptoms of arterial insufficiency in the right leg following the cannulation for bypass also appear to have settled and her exercise tolerance extends to walking seven miles without discomfort. There is no neurological deficit and her family are unable to recognise any more subtle alteration in personality.

WAKEFULNESS AND AWARENESS DURING ANAESTHESIA FOR CAESAREAN SECTION

Dr. M. TUNSTALL

The isolated forearm technique IFT (Tunstall, 1977) enables the anaesthetist to know whether his patient can respond to simple command. This is known as "wakefulness". "Awareness" is the phenomenon when the patient is able to **remember** the spoken word or other events taking place during the operation.

If wakefulness is abolished, awareness does not occur. In the absence of IFT the anaesthetists uses a technique in which he knows from experience the baby will be born in good condition, yet at the same time, the incidence of awareness in the mother is acceptably low. If however IFT is used routinely for most anaesthetics for Caesarean Section the dose of anaesthetic can be increased for those mothers found to be wakeful. At the same time the anaesthetic can be safely reduced in those cases for instance where there is already drug depression, e.g. Pethidine received during labour. The experience of using IFT in 232 consecutive Caesarean Sections under general anaesthesia is reported. The basic anaesthetic technique has already been outlined (Tunstall, 1979). Four different sequences were compared. Their essential features are outlined in Table I. Zero time is taken as the commencement of the injection of Thiopentone.

Table 1

To show details of four anaesthetic techniques compared.

O_2 (oxygen litres per minute), N_2O (nitrous oxide litres per minute), H (Halothane%)

Time (mins)	"Pre-Halo"			"Low"			"High"			"Moir"		
	O_2	N_2O	H	O_2	N_2O	H	O_2	N_2O	H	O_2	N_2O	H
-3	8	–	0.5	8	–	–	8	–	–	8	–	–
+2	8	4	0.4	8	4	0.4	4	8	0.4	4	8	0.5
+5	8	4	0.4	8	4	0.4	8	4	0.4	5	5	0.5
Shortly after delivery	4	8	–	4	8	–	4	8	–	4	8	–

At +2 minutes, the degree of spontaneous movement and postural tone of the isolated forearm was recorded, as well as the occurrence of wakefulness. These recordings were made every minute, if possible, until develivery. For analysis of the results two by two tables with Yates correction for the Chi-squared test were used.

Various Results

The incidence of wakefulness occurring any time after induction was 41% overall. "Pre-halo" 34% of 70 cases, "Low" 44% of 32 cases, "High" 44% of 110 cases and "Moir" 45% of 20 cases. A total of 34 patients had some form of pre-operative sedation. Twenty-three of these were in labour and had received Pethidine. Wakefulness was significantly reduced in this group (p less than 0.01).

In the "pre-Halo" cases the incidence of wakefulness at 2 and 3 minutes was significantly reduced (p less than 0.05) compared to the other cases combined. There was a significant reduction of wakefulness overall at 4, 5 and 6 minutes when 66% nitrous oxide was used, (p less than 0.01). If only the cases wakeful at 2 and 3 minutes were considered the effect of 66% nitrous oxide on the 4–6 minute interval was even more apparent (p less than 0.001).

The correlation between spontaneous hand movement and wakefulness was highly significant, (p less than 0.0001). There was no wakefulness in the "Moir" group after the 3 minute interval, but 20 cases is a small number. There was a 37% incidence of "reflex grip." This is where the patient grips the anaesthetist's hand on contact only, and she appears unable to respond to the command to leave go. This reflex grip was significantly concentrated in the wakeful group, (p less than 0.001). It is considered to be the stage before wakefulness.

After the operation had started the opportunity was taken to ask 26 patients found to be wakeful, if they were uncomfortable or felt pain. Seventeen signalled "yes", 5 gave no reply and 4 gave unequivocal signals for "no".

Various other findings and also details of adjustments made to the anaesthetic sequences were presented at the meeting.

There were four cases of awareness. Two remembered being asked to squeeze a hand. There was no discomfort or fear in either case. The third case remembered hand squeezing but being unable to leave go. She had no recollection of any operative or anaesthetic factors. She had no mental or physical discomforts. She did not question the situation, because of the pre-operative explanation she thought.

The fourth case of awareness was "aware by request". Her case report has already been published (Tunstall 1980). In June this year she asked for the same anaesthetic to be repeated for her second Caesarean Section. She was "aware" again. The relevant pre-intra and post-operative parts were filmed. The film was shown to the meeting.

Two recommendations influenced by the clinical observations made by the author during this and previous series were offered.

1. In the absence of IFT the anaesthetic technique of choice is that of Moir (1970).
2. After the normal induction does of Thiopentone of 200–300 mg wakefulness occurs in a large number of cases by the time the endotracheal tube is secured in its place. This wakefulness can be abolished after two minutes by inhalation of 66% nitrous oxide and 0.5% halothane. The use of 66% nitrous oxide in the first three minutes of Moir's technique is suggested as a useful modification.

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Professor J. D Robertson
4th Gillies' Lecturer

The President making the presentation

News From The Regions

GRAMPIAN REGION

The past year has seen a number of staff changes, the most notable being the retirement of Dr. W.M. Rollason who, in addition to his normal appointment, was 'Consultant in Administrative Charge' for the last 22 years. His retiral was marked in the usual way by a very successful function at a local hostelry. We wish him a long and happy retirement.

We welcome Dr. Gillian Adey, who is no stranger to the department, on her appointment in place of Dr. Pook. We also welcome Dr. George Smith who has just joined us to replace Dr. Rollason. An Aberdeen graduate, Dr. Smith has been Senior Registrar in Nottingham after having spent several years in the Royal Air Force.

Dr. Desira leaves us after a comparatively brief stay as Senior Registrar to take up a consultant appointment in Middlesborough.

Other staff changes include the promotion of Dr. F. MacLennan and Dr. J. Orr to Senior Registrars, and Drs. M.Y. Babikir, I. Levack, A. Michie and W.B. Mair as registrars. We also welcome Dr. A. Dow, Dr. C. Watt and Dr. Wm. Morrison as new members of the department.

We congratulate Dr. R. Casson, Dr. G. Duthie, Dr. A. McDonald, Dr. J.G. Muir and Dr. A. Sheikh on passing the final F.F.A. examination and particularly Dr. I. Levack who obtained his M.D. Similarly Dr. W.B. Mair who has recently been successful in the Primary examination.

Dr. Louise Aldridge has returned to the department on a part-time basis, and Dr. J. MacKenzie resumed his normal clincial duties at the beginning of September, after a period of 'high-pressure' research with Dr. Dundas.

The other major department event of the year has been the long-awaited move to our new department in Phase II which was achieved with a minimum of inconvenience thanks to all those involved. Whilst a minority of us find the location geographically less convenient the general consensus of opinion is favourable, particularly as we are now within very easy reach of what has become the major operating area in the Royal Infirmary.

Our efforts to accelerate the transfer of the I.T.U. to spacious purpose-built accommodation in Phase II have however met with much less success and the beds still remain within the neurosurgical unit.

The pain clinic has now been formally established and, in common with similar facilities elsewhere, the work-load is steadily increasing.

We look forward to having the Scientific Meeting of the Society here in Aberdeen in November, and trust that it will come up to the high standard we have come to expect of this meeting in recent years.

HIGHLAND REGION

Our new DGH building has now grown to its full size of eight storeys and we have been thinking out our requirements for addition to the proposed equipment lists for the nine-theatre operating suite. One wonders how far the budget will stretch beyond the "Dropper bottle, Bellamy Gardner" x 2 and "Mask, open ether, child's" x 3 per anaesthetic room already listed!

We welcome as newcomers to our department Dr. Roger Freeman as registrar and Dr. Linda McIntyre as SHO.

TAYSIDE REGION

International travel by the Dundee junior anaesthetists appears to be the fashion. Bob Mann spent three months in Newfoundland earlier in the year. Will Elsden is there for a similar period just now. Charlie Allison will spend 1982 at the Sick Children's Hospital in Toronto while Joe Sheriff is going to New Zealand.

The movement of orthopaedic services from Bridge of Earn to Dundee has necessitated the establishment of two new posts. Ian Grant arrived early in the year and Bill McCrea will be arriving shortly – both from Glasgow. In the reverse direction, Tom Ireland has gone to a senior registrar post.

Edmund Buchanan, a loyal supporter of the Society, has retired and we wish him well. His place will be filled by Melvin Thomson. A senior registrar in Bristol, he has retained his membership of the Society since his days as a registrar in Glasgow. Johnny Millers will also be leaving soon and as Past-President of the North-East of Scotland Society of Anaesthetists he will be missed by us all. The resulting vacancy in Perth has not yet been filled.

WESTERN REGION

There have been many achievements this year. We were delighted at the appointment of our immediate Past President, Professor Donald Campbell, as Vice Dean of the Faculty of Anaesthetist. We wish him a successful term of office.

Other educational appointments include Dr. Robin Marshall (Victoria Infirmary) as Speciality Adviser in Anaesthesia for the West of Scotland, and Dr. Alex Reid (Royal Infirmary) has become Chairman of the Sub-Committee in Anaesthesia, of the West of Scotland Committee for Post-Graduate Education – quite a tongue-twister.

Dr. Henry Fairlie has retired from the Western Infirmary and Dr. O.M. Watt (Monklands District) is looking forward to his retiral in November 1981. We wish them a happy retirement. Dr. Harvey Granat has been lured out of retirement back into harness at the Institute of Neurological Sciences, SGH.

The local travel agents have been experiencing a boom year; Dr. Bill Fitch (GRI) has just returned from a lecture tour of the Middle East; Dr. M. Telfer lectured at the third National Congress of the Critical Care Society of Southern Africa; and Dr. Gavin Kenny (GRI) has visited the USA twice. He has also been busy on home ground, setting up a Computer Assisted Learning Programme linkage with the Ayrshire hospitals. Dr. Alastair Naismith (SR, Stobhill) is expanding his experience with a year in Malawi. Dr. Andrew Hothersall forfeited his annual leave to go as Medical Adviser to the British Sub-Aqua Club's expedition to Iceland. So far there is no apparent evidence of the bends. Dr. Sandy Gillies (SR, Victoria) departed to Down Under. We wish him good luck in Australia.

The Cardio-Thoracic Unit which has existed at Mearnskirk since time began has, after a long period of uncertainty, at last been transferred to the Western Infirmary. Dr. A. Hoterhsall and Dr. D. McLaren have also been given a full transfer as part of the package deal.

Phase I of the new Royal Infirmary will be handed over to the Greater Glasgow Health Board in November 1981 and hopefully it will be opening the doors to the first patients in the Summer of 1982. At last, a glimmer of light from Ayrshire; the North Ayrshire District Hospital should be commissioned in the Autumn of 1982.

Dr. Dev Sewnauth has been appointed to a consultant post in Greenock and Dr. Bob McDevitt to a similar post in Paisley. Dr. John Brown returns from Manchester to take up a consultant position at the Western Infirmary. Stirling Royal is about to increase its consultant anaesthetic establishment; the draw for the lucky person has still to take place. Dr. Bryce Watson, ex Newcastle, joins the team at Dumfries. Dr. Chris Hanning departed to become Senior Lecturer at the University of Leicester with Professor Graham Smith. Dr. Guy Routh has departed to Gloucester, Dr. Bill Macrae and Dr. Ian Grant have been enticed to Dundee as consultants. New senior registrar appointments include: Dr. Brian Cowan, Dr. J.B. (Shamus) Thompson and Dr. Gordon Sutherland to the Royal Infirmary; Dr. Thomas Ireland and Dr. Gordon Todd to the Western Infirmary and Dr. David Dutton and Dr. Christopher Sugden have joined the Victoria Infirmary department.

SOUTH-EAST REGION

There seems to have been less change in the South-East this year! The University Department continues as before, holding the usual in-service primary and final FFA exam courses as well as those on the "Scientific Basis of Anaesthesia" and "Local Anaesthesia". New ventures were two short local anaesthetic practical courses and a one-day meeting on induced hypotension. The undergraduate teaching programme has again increased its demands, but it would appear that all involved have met their commitments ably.

The NHS side of the Infirmary seems to have been strengthened by the new triple leadership and the reorganisation of the emergency on-call rota seems to be settling down after a few teething problems. David Scott is moving sideways to a new post in the Cardiac Unit and David Brown is to fill the consultant vacancy. We are pleased to hear that the University have agreed to the continuation of his lecturer post. Several members of the department have travelled overseas to lecture: Professor Robertson to the Sudan and to Tanzania, Tony Wildsmith to Saudi Arabia and Bruce Scott to almost everywhere else!

At Senior Registrar grade, one of Edinburgh's stalwarts, Andrew Norbury, has left us for a consultant post in Newcastle, and Dr. Neil Renshaw obtained a post in Workshop. Dr. Glenys Jones took the "easy" way out and has had a baby. Senior Registrar vacancies were filled by Colin Sinclair (who has gone to Montreal for a

year) and Halena Anderson. Ron Meek has just returned from a year in Newfoundland.

In Fife Dr. J.W. Kyles, for many years the senior anaesthetist in Kirkcaldy and greatly renowned for his support of his juniors, has retired. The vacancy in the Lang Toon has been filled by Dr. Jenny Brunton, a senior registrar from Sheffield, who previously trained in Edinburgh. There have been changes at Peel Hospital in the Borders where Dr. Duncan McNaught has retired to be replaced by Dr. A.J. Morris, a senior registrar from Leeds who qualified in Aberdeen.

The height of the social season was again the Christmas Party – greatly enjoyed by all. "Where will we go this year" is on everyone's lips!

Finally we must pass on our sincere congratulations to Professor Robertson who this year was not only this Society's Gillies Lecturer, but who has also been awarded the Faculty Medal in recognition of his contribution to Anaesthesia.

OBITUARY

DAVID S. MIDDLETON TD FRCSEd FDSRCSEd, who was President of the Scottish Society of Anaesthetists in 1932, died recently. He was a double graduate, qualifying in dentistry in 1923 and medicine in 1924 and prior to World War II practised both dentistry and anaesthesia, holding the appointment of Anaesthetist to the Royal Infirmary of Edinburgh. During the War, while a prisoner of the Japanese, he gained extensive experience of the use of open chloroform in fellow prisoners whose nutritional status was very poor. They were often undergoing quite major surgery and were severely anaemic, yet it is said that he never had a death attributable to anaesthesia.

Following the War he largely gave up anaesthesia and concentrated on the dental side of his practive, becoming Consultant Oral Surgeon in the Royal Infirmary of Edinburgh. One of his great abilities was the passing of naso-tracheal tubes "blind" under ether anaesthesia, a skill which he continued to teach junior anaesthetists when he was working as an oral surgeon. A physically strong and very generous man, his death marks the last contact with a group of very skilled dentist-anaesthetists who contributed much to anaesthesia in Edinburgh.

PHOTOCALL

Sunday morning at Aviemore!

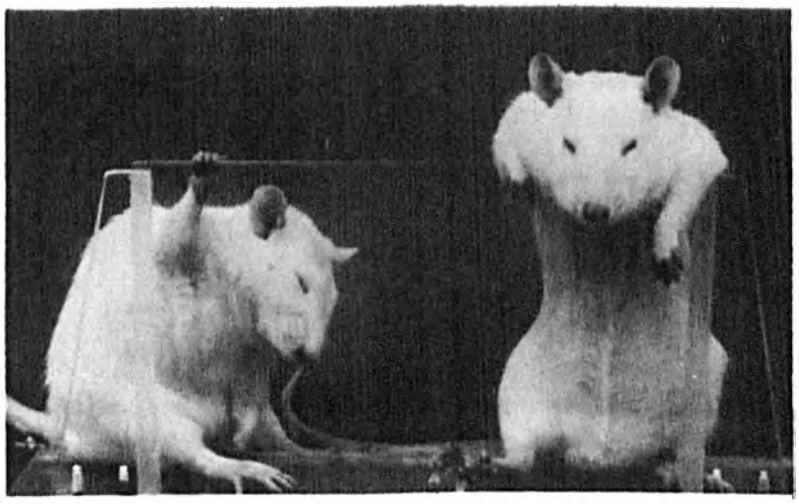

Photo courtesy of Dr. Barbara Millar and Janssen Pharmaceuticals Ltd.

PHOTOCALL

The Presidential Address:

Before.....

and After!!

Snapped at the A.G.M.

Photos courtesy of Professor Gordon Robson

NORTH EAST OF SCOTLAND SOCIETY OF ANAESTHETISTS

SYLLABUS 1980–81

Meetings are held at 8.00 p.m. in Aberdeen Royal Infirmary, Ninewells Hospital, Dundee, and in Stracathro Hospital, Brechin, unless otherwise notified.

1981

Thursday 17th September Aberdeen:
"Clinical Controversies in the Management of the Adult Respiratory Distress Syndrome".
Dr. M.A. Branthwaite, London.

Thursday, 29th October Stracathro:
"Worm's-eye View!"
Mr. D.M. Proctor, Aberdeen.

1982

Thursday, 25th February Stracathro:
Registrars' Papers.

Thursday, 1st April Dundee:
"Metabolities of Halothane and their significance."
Dr. I.C. Geddes, London.

Thursday, 13th May Stracthro:
Annual General Meeting and Presidential Address.

EDINBURGH & EAST OF SCOTLAND SOCIETY OF ANAESTHETISTS

SYLLABUS 1981–1982

Meetings will be held in the Royal College of Surgeons Nicolson Street, Edinburgh, 7.45 p.m. for 8 p.m. unless otherwise stated.

1981

Friday, October 30th:
Combined meeting with Glasgow and West of Scotland Society of Anaesthetists.

Tuesday, November 3rd:
Members' Night.

Tuesday, December 1st:
Dr. T.A.S. Buist, Consultant Radiologist, Department of Diagnostic Radiology, R.I.E. His subject will be "The Present Status of Interventional Radiology".

1982

Tuesday, January 5th:
Professor John Norman, Department of Anaesthetics, University of Southampton, will talk on "Problems with Paralysis".

Tuesday, February 9th:
Presidential Address

Friday, March 5th:
Annual Dinner

Tuesday, March 16th:
Mr. A.W. Good, Consultant Surgeon, Charing Cross Hospital, London, and U.K. Adviser to NASA will speak on "Man and Medicine in Space".

Tuesday, April 20th:
Annual General Meeting.

Further details of meetings, etc., from Dr. J. Wilson, 15 Campbell Road, Edinburgh, 12.

GLASGOW AND WEST OF SCOTLAND SOCIETY OF ANAESTHETISTS

CURRICULUM 1981–1982

1981

Friday, October 30th:
Combined Meeting with Edinburgh and East of Scotland Society of Anaesthetists – in Glasgow.

Speaker: Professor M.R. Bond. "What happens eventually to your brain-damaged patient?"

Wednesday, December 2nd:
Professor M.K. Sykes. "New techniques of respiratory support in patients with acute lung disease."

1982

Tuesday, January 19th:
Members' Night – presented by members of Division of Anaesthesia, Victoria Infirmary.

Thursday, February 19th:
Dr. F.R. Ellis. "Clinical and Biochemical studies of patients susceptible to Malignant Hyperpyrexia."

Tuesday, March 16th:
Presidential Address – Dr. John Barker.

Thursday, April 15th:
Annual General Meeting.

Thursday, May 20th:
Golf Outing – Willimwood Golf Club – 2 p.m.

Unless otherwise stated, meetings will be held in the Royal College of Physicians and Surgeons of Glasgow, 242 St. Vincent Street, Glasgow.

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