surgical exploration was very low in this study and supports the findings of previous published series.2,3

Traditionally, the site of ICDs has been the 2nd intercostal space in the mid-clavicular line anteriorly to drain air from the pleural cavity, with a posterior drain inserted at a lower level for drainage of blood. However, the anteriorly placed ICD can cause damage to the pectoralis major in men, and to the female breast. The posterior basal ICD has been associated with perforation of the diaphragm and damage to the liver, spleen or stomach. Postoperative pain, because these drains are inserted through a thick layer of muscles, is another disadvantage.

The results in this series have shown that the insertion of a single ICD in the mid-axilla is an adequate method of treatment for both pneumothorax and haemothorax.

The complication rate in this series was relatively low and compares favourably with that in similar studies from other institutions.6,7

Patients who required needle aspiration (6.8%) or the insertion of a second ICD (2.7%) to drain small collections of blood can be regarded as minor failures. Wilson et al.6 reported a similar incidence of minor failures in their review of 408 patients treated by insertion of a single ICD.

In this study, the number of patients who required thoracotomy to evacuate a residual haemothorax and those undergoing decortication for empyema were small and similar to those in the series reported by Hegarty,1 Graham et al.2 and Wilson et al.6 Aseptic surgical technique and prompt pulmonary re-expansion are essential to prevent major complications such as empyema. In other reports, empyema secondary to haemothorax has occurred in as many as 16% of patients.8,9

The absence of complications related to the insertion of a mid-axillary ICD suggests that this is a safe site while lower ICDs may cause perforation of the diaphragm and damage to the spleen, liver, stomach and other intra-abdominal organs.9

Conclusions

Most patients with thoracic trauma can be treated conservatively. Careful selection of the candidates for surgical exploration is required to avoid unnecessary surgery.

It would appear from the results in the patients in category B of this study that insertion of a single ICD in the mid-axillary line in the 5th intercostal space is safe, easy and comfortable for the patient and appears to be an effective method of management for both pneumothorax and haemothorax.

REFERENCES


Smoking habits and attitudes of Durban metropolitan anaesthetists

C. CALLANDER, D. A. ROCKE

Summary

A modified World Health Organization questionnaire about the smoking habits and attitudes of health professionals was sent to all practising anaesthetists in the Durban metropolitan area. The most striking feature of the 102 replies (response rate 78%) was the trend away from smoking, 58% of respondents having smoked at some stage and only 19% currently smoking daily. The marked consensus on the steps which should be taken to curb public smoking corre-

lated with the views of both the Medical Association of South Africa and the South African Medical Research Council. It was, however, disappointing that some anaesthetists smoked in the presence of patients (6%), did not advise pregnant patients to stop (9%), and disagreed with sales restriction to minors (13%). It is hoped that this study will provide the impetus for a larger study among all practitioners in order to define clearly attitudes towards smoking and to bring effective pressure upon Government to curb smoking.


Scientific evidence is now so overwhelming that responsible opinion can no longer doubt that tobacco smoking is a major cause of cancer of the lung, ischaemic heart disease, chronic
bronchitis, and a number of other conditions leading to disability and premature death.  
  
South Africa is one of 120 countries in which tobacco is grown. There are over 5 million smokers in this country smoking some 63 million cigarettes daily. A country in which Third World diseases take up a large proportion of the nation's health resources can ill afford to bear the additional costs of the predicted epidemic of smoking-related diseases. Taylor has coined the term 'the smoke ring' to denote the interdependence of farmer, manufacturer, government and consumer. Only major changes in public attitude will weaken or break the strong links of this ring. In the 1950s in the UK after greater medical awareness of the association between cigarette smoking and lung cancer, attitudes to smoking among British medical practitioners changed dramatically. Between 1954 and 1971 the proportion of male doctors smoking cigarettes halved (43 - 21%), this played a large part in changing public attitudes. If such a change is to occur in South Africa it is important to define the role of our own medical practitioners.

Subjects and methods

This study was undertaken to determine the smoking habits and attitudes of a small subset of the medical profession, and may serve as a pilot study for further work. A modified version of a standard World Health Organization questionnaire for health workers was sent to 130 practising anaesthetists of all grades, both in provincial and private practice in the Durban metropolitan area.

Questionnaire

The questionnaire contained questions under 5 headings detailed below. It was modified to make it more applicable to South Africa and a section was added to determine attitudes of anaesthetists towards smokers scheduled for surgery. Because of the small numbers involved, questions relating to brand and numbers of cigarettes smoked per day were deleted. The questionnaire was distributed and returned in such a way that confidentiality was protected.

Results

After repeated requests to fill in the questionnaire, 102 were completed and returned, providing a high response rate (78%).

Of the respondents 88 were males and 14 females. Age, anaesthetic experience and current position held are shown in Fig. 1.

![Fig. 1. The frequency distribution of respondents against: (a) age (yrs); (b) position held — C = private practice; N = nurse anaesthetist; R = registrar; S = senior registrar; C = consultant; and (c) experience (yrs).](image)

Smoking behaviour

Some 58% of the anaesthetists had smoked at one time and 42% had smoked daily for more than 6 months. However, at the time of the study only 19% smoked daily, with a further 6% smoking occasionally; 80% had at some time thought about stopping. Of those who smoked 19% did so while at work; 14% frequently and 5% occasionally smoked in the presence of patients. When asked what they thought of their smoking habits 5 years from now, 77% said they certainly would not be smoking daily. Reasons for not smoking among all respondents are detailed in Table I.

<table>
<thead>
<tr>
<th>Question</th>
<th>High</th>
<th>Moderate</th>
<th>Low</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health protection</td>
<td>15%</td>
<td>52%</td>
<td>21%</td>
<td>23%</td>
</tr>
<tr>
<td>Symptom avoidance</td>
<td>10%</td>
<td>88%</td>
<td>10%</td>
<td>18%</td>
</tr>
<tr>
<td>As an example</td>
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<td>7%</td>
<td>77%</td>
<td>11%</td>
</tr>
<tr>
<td>to children</td>
<td>15%</td>
<td>10%</td>
<td>20%</td>
<td>50%</td>
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<tr>
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<td>15%</td>
<td>8%</td>
<td>77%</td>
<td>11%</td>
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<td>0%</td>
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<tr>
<td>colleague pressure</td>
<td>15%</td>
<td>12%</td>
<td>77%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Perception of smoking as a health hazard

Of the respondents 88% agreed strongly with the statement: 'Smoking is harmful to health.' Asked if they were concerned about the harmful effects of smoking on their own health, 59% were very concerned, 26% fairly concerned, 10% slightly concerned and 5% not concerned.

Most respondents felt smoking to be strongly associated with certain diseases — chronic bronchitis (82%), lung cancer (79%), emphysema (63%), peripheral vascular disease (55%) and coronary artery disease (51%).

Actions in respect of patients

Of the respondents 51% stated that on premedication ward rounds they always asked patients whether or not they smoked, while 36% frequently did so and the remainder asked only occasionally. The majority advised all cigarette-smoking patients with peripheral vascular disease (50%), pulmonary lesions (55%), heart disease (52%) and pregnancy (50%) to stop smoking, but 9% did not advise their pregnant patients to stop and 13% did not advise those with peripheral vascular disease to stop. Four per cent of respondents felt they would never advise patients against smoking even if they had smoking-related diseases and 3% would not do so even if the patient raised the question.

From the point of view of peri-operative management, 8% of those answering always altered this for patients who smoked, 36% did so frequently and 49% occasionally, while 7% never changed their management. Steps taken included requesting lung function tests and ordering physiotherapy, banning smoking during the admission and using regional techniques.

Opinions and attitudes

Most respondents agreed that it was the doctor's responsibility to persuade people to stop smoking, and 79% felt that doctors should set a good example by not smoking. In addition, 85% agreed with the view that doctors should be more active in speaking to lay groups about smoking. Ninety per cent felt their current knowledge was sufficient as a basis for counselling patients, and 83% believed that most smokers could stop if they wanted to. However, 81% felt that most smokers would not give up even on medical advice. On a personal note, 84% found it annoying to be near a smoker.

Opinions regarding legislative action are shown in Table II.


Results were analysed for statistical differences \((P < 0.05)\) between responses when divided into groups according to respondent's age, experience and position held. Responses of smokers and non-smokers were further compared. Possibly as a result of the limited numbers, no significant differences in responses were found in relation to age, experience and position held. However, there was a difference between the number of respondents who had smoked in the past \((57\%)\) and those who now smoked daily \((19\%)\) \((P < 0.002)\). Significant differences were apparent between smokers and non-smokers with regard to their perception of smoking as a health hazard. Of those respondents only mildly agreeing that 'smoking is harmful to health' as opposed to strongly agreeing, a significantly greater proportion \((73\%)\) were smokers \((P < 0.05)\). Similarly when asked if concerned about the effect of smoking on their own health, less of the smoking group were 'very concerned': \(21\%\) v. \(59\%\) for non-smokers \((P < 0.01)\), and more of the smokers were only 'slightly concerned': \(37\%\) v. \(10\%\) \((P < 0.05)\).

**Discussion**

If effective pressure is to be brought upon government to legislate against smoking, the attitude of the medical practitioner is clearly important. In gauging the opinions of a country's medical profession, one can either survey all practitioners or canvass a representative subgroup. We have chosen the latter. We accept the criticism that our numbers are small, but feel that our results may well be applicable to the majority. Anaesthetists may reasonably be viewed as a group of doctors whose work requires an appreciation of both the short- and long-term effects of tobacco smoking. It is hoped that this study may show the need for a larger study to define clearly medical practitioners' attitudes towards smoking.

This study revealed a striking trend away from smoking, parallel to the trend in the UK between 1954 and 1971. Both this decrease and the fact that only \(10\%\) think they will be smoking in 5 years' time is heartening. If this decrease holds true for the whole South African medical population we can expect a reduction in the incidence of smoking-related diseases towards the end of the next decade. This is in marked contrast to that for the general public. Surveys over the last decade have revealed a level of smoking among South African adult males of between 58% and 79%. Health protection and symptom avoidance were important factors in not smoking but few respondents were concerned with pressure from colleagues or the price of the tobacco. If these views are representative, they are surely of value when planning anti-smoking action. The fact that 75% of the respondents felt it either of high or moderate importance to set a good example for children by not smoking is important in view of the finding in a recent survey of South African children that peer influence was the single most important determinant of their smoking habits. It was disconcerting to find that 5% of the respondents occasionally smoked in the presence of patients.

A significant difference between smokers and non-smokers as regards the perception of smoking as a health hazard is perhaps not unexpected. One might therefore be concerned about the type of advice on smoking and disease being given to patients by doctors who themselves smoke. However, no difference could be found between smokers and non-smokers on matters such as asking patients if they smoke, advising patients and altering peri-operative management for smokers. Although every respondent asked patients at least occasionally if they smoked, 4% never advised patients with smoking-related diseases to stop and 3% never advised stopping smoking even if the patient raised the question. It is worrying to find that 9% never advise pregnant patients to stop, and that 13% never do so for patients with peripheral vascular disease. It is notable that the vast majority of respondents \((93\%)\) at some time change their peri-operative management because of a patient's smoking habits.

Perhaps the most important part of the questionnaire covered opinions on the doctor's role and legislative action. There was a marked consensus that the doctor had a responsibility to persuade people to stop smoking and that present knowledge was sufficient to counsel patients who wanted to stop.

While respondents felt that doctors should be more active in speaking to lay groups about smoking, they also felt that most people would not give up smoking even if their doctors told them to.

If this small study is truly representative, then views on legislative action could provide powerful ammunition to those bringing pressure to bear on government for anti-smoking measures. Steps advocated by both the Medical Association of South Africa and the South African Medical Research Council all received overwhelming support. It was both surprising and disappointing, however, that as many as 13% of respondents disagreed with the restriction of sales to children.

In conclusion, this study carried out in a small but well-defined group of the medical profession may guide those wishing to influence the smoking behaviour of our general population. However, while the findings may indicate real trends projected to the whole of the profession, this survey may best serve as a pilot study. If a large-scale project covering all South African doctors produces similar results, this will put immense pressure on government and other relevant bodies to take far more concrete measures to curb cigarette smoking in this country and go some way towards preventing the predicted epidemic.

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**REFERENCES**