Comparative Study of the Smoking Habits of Physicians in Cairo and Riyadh in 10 Years

Sir,

I read with interest the article by Dr Abdalla Saeed et al., Smoking Habits of Physicians in Riyadh, Saudi Arabia (Saudi Med J 1989; 10(6): 508–511), reporting the excellent work they have conducted.

I have studied the smoking habits of the medical teaching staff of the Faculty of Medicine in the University of Cairo (Egypt) in 1977, and the work was presented to the Third Gulf Antismoking Conference, held at Dubai (United Arab Emirates) 25–27 February 1984. I am writing to you because of the interesting comparison that can be made between the two studies 10 years apart (1977 and 1987) in two somewhat similar societies and professional environments.

The following are some observations: The response rate in the second study (81%) is exceptionally high if compared to the first or any other similar study, and with about a quarter of the responses coming from female physicians shows the greater involvement of females in the problem, as their participation in the first study was less than 10%. The global ever-smoking prevalence dropped remarkably (from 84% to 48%) but that in females increased more than two-and-a-half times (9.1% to 24%).

The global never-smoked prevalence increased sharply (from 16% to 52%) and the current smoker percentage decreased to little more than a half (from 60% to 34%). The will to abandon smoking was very common in both studies and the rates of serious attempts were 65% and 60%, but the success rate declined (from 23% to 14%). In the first study, the method of giving up was stressed and 60% of those who succeeded did so by sudden stoppage; the failure rate of this method was only 8%. Those who followed the gradual cut-down method had a success rate of 24% and failure rate of 10%. Amongst the remainder 16% success and 82% failure was the outcome of those who used tobacco substitutes.

In the first study 70% of the physicians reported that they asked their patients if they smoked, but only 49% were asked if they smoked; 57% correlated the health condition of their patients to their smoking habits. It was also found that 41% of physicians advised all their smoking patients to give up, and 15% to cut down or switch to a lighter type/brand. Another 15% only advised those patients with smoking-related conditions to abandon smoking; 8% only explained the hazards of smoking and left it to the patient to decide, and 10% were not concerned about the problem. Thirty eight per cent of physicians believed in antismoking campaigns and the mass-media educational programmes; 37% in direct physicians’ advisory role; 12% in specialized antismoking clinics; 3% in the official warning label on the tobacco packets; 3% in tobacco-substitutes; 18% by all the methods and 6% believed in none of the methods. The second study showed that the majority (87%) of physicians believed that smoking was hazardous to health. It stressed the role of practising physicians in spreading the antismoking message to their patients and also religious considerations. In conclusion, I think, there is a considerable improvement in the smoking status within the medical profession in our area but not to a level that makes us proud. We have to continue our efforts not only to convince smokers to give up but also to help them get rid of the unnecessary and totally preventable morbid consequences of smoking. This should move hand in hand with the prevention of people taking up smoking for the first time and this aspect should have the first priority.

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Reference

Sir,

The study populations of the two studies in Cairo and Riyadh are similar because they were all physicians. They are, however, somewhat different because in Cairo they were almost all Egyptians working in an academic environment; while in Riyadh they were composed of different nationalities and working in academic and non-academic institutions. The response rate of 81% in Riyadh was high but we had hoped for an even higher response. The concerned health authorities were helpful in this respect by encouraging physicians to participate in the study. The credit for this high response, however, was largely due to the repeated visits by the research team to the physicians at their work to distribute and collect questionnaires. This was coupled with follow-up activities in the form of reminder letters, telephone calls and announcements during professional meetings to stimulate non-responders.

The trend of increasing smoking prevalence among females is a universal phenomenon. More women are going to work, having their own income, and are subjected to stresses. The prevalence of smoking among women in developing countries is still low and does not exceed 10%. The prevalence of smoking among the educated women in developing countries is higher. For instance it was 19% in Sudan and 12% in Riyadh. Smoking surveys among women in developing countries in general and Arab countries in particular may not reflect the real situation since some smoking women may deny the habit
which is still socially unacceptable. This may explain the 0% smoking prevalence among female students in a university community in Iraq.  

On average, the smoking prevalence in developing countries is about 40%.  

In Egypt, the smoking prevalence showed a steady decline in the last decade apparently following the implementation of antismoking legislation.  

A recent survey in Egypt showed that smoking prevalence ranged between 16% and 21%. The results obtained by Dr Al-Numairy appear to be consistent with the overall prevalence of smoking in Egyptian society.

The experience of developed countries has shown that before antismoking campaigns start in a community, the high social class smokes more than the other classes as smoking is considered a symbol of high social class and prestige. This may explain the high prevalence of smoking among medical school teachers which reached 64% in countries like Sudan.  

Following antismoking campaigns, the smoking prevalence drops more in the high social class than the other classes because the high social class is apparently more likely to receive and accept the antismoking message. Sixty per cent of the physicians in Riyadh would like to be, or continue to be non-smokers to set a good example to children, while 40% would like to set a good example to adults, patients and other health workers and to reflect self-discipline and professional responsibility.

We agree with the conclusion of Dr Al-Numairy that there is a dramatic reduction in smoking prevalence among medical professionals. We think that there will be further improvement in the smoking habits of health professionals in general, and physicians in particular, since they are all now more concerned about the adverse effects of smoking on the individual and the community. Antismoking campaigns should be intensified and they should highlight the health, religious, social, economic and professional implications of smoking.

References


Bronchial Asthma in Asir Region

SIR,

There is a dearth of information published on respiratory diseases in Asir region. Bronchial asthma is a common respiratory disease seen at the Chest Clinic of Asir Central Hospital (ACH), comprising 35% of patients and 33% of all clinic visits. Indeed asthma is no longer a disease of the affluent society but is common even in Third World countries.  

The present study was a compilation of asthmatic patients seen at the weekly referral chest clinic at ACH, and in-patients seen or referred to the author between December 1987 and December 1988, a total of 48 weeks excluding July.

Table 1 shows the age and sex distribution including the age of onset of asthma; 51 patients (61%) were female, 60% of whom were 15–35 years of age. The corresponding figure for males was 38%. No patient had onset of asthma after the age of 55 years. All except two were Arabs and over 90% were Saudi nationals. The youngest age of onset was 2 years in a female.

Table 2 summarizes some of the common precipitating factors of asthma. An unusually frequent factor, not encountered in Western countries is the burning of incense—a very common traditional Saudi practice at home and at various social gatherings.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Sex</th>
<th>&lt;15</th>
<th>15–25</th>
<th>26–35</th>
<th>36–45</th>
<th>46–55</th>
<th>56–65</th>
<th>65–Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1(3)</td>
<td>4(10)</td>
<td>8(11)</td>
<td>4(5)</td>
<td>6(3)</td>
<td>7(0)</td>
<td>2(0)</td>
<td>32</td>
</tr>
<tr>
<td>Female</td>
<td>0(9)</td>
<td>12(16)</td>
<td>19(20)</td>
<td>9(5)</td>
<td>8(1)</td>
<td>3(0)</td>
<td>0(0)</td>
<td>51</td>
</tr>
<tr>
<td>Total</td>
<td>1(12)</td>
<td>16(26)</td>
<td>27(31)</td>
<td>13(10)</td>
<td>14(4)</td>
<td>10(0)</td>
<td>2(0)</td>
<td>83</td>
</tr>
</tbody>
</table>

Values in parentheses indicate number of patients at age of onset of symptoms.

<table>
<thead>
<tr>
<th>Precipitating factors in bronchial asthma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Dust</td>
</tr>
<tr>
<td>Exercise</td>
</tr>
<tr>
<td>Cold</td>
</tr>
<tr>
<td>Bad odour (+ incense)</td>
</tr>
<tr>
<td>Psychological factors</td>
</tr>
<tr>
<td>Upper respiratory tract infection (URI)</td>
</tr>
<tr>
<td>Pregnancy</td>
</tr>
<tr>
<td>Aspirin</td>
</tr>
</tbody>
</table>
All patients had taken some form of ‘Western’ medicine in the form of tablets, inhalers, syrups or injections before coming to the clinic. On the other hand, some tried a local form of therapy, ‘Tibb Araby’. Thirteen patients had skin cauterization, classically done over the chest anteriorly and posteriorly, elbows and wrists; rare sites included the scalp and neck. Only one patient reported prolonged remission from this treatment. Twenty patients used honey. Two reported some improvement after taking it but could not afford to continue because of the cost. This is a very popular form of asthma treatment in Addis Ababa also. Eight patients tried other concoctions but to no avail.

Although the figures were rather small, the females were younger and more numerous than the males. Pregnancy was an important precipitating factor but several women were unmarried and some were menstruating. Aspirin-induced asthma was reported in only four. The most likely reason for this low figure was the fact that aspirin was very sparingly used for headaches or pain. Paracetamol was by far the most commonly consumed analgesic for these purposes.

A family history of asthma was elicited in 26 (31%) while 42 denied such a history and 15 were unsure. Considering the high rate of consanguineous marriages in the region, a family history of asthma was no more common than in some other Western and African countries; the corresponding figures were 36% for Ethiopia, 13% for Libya, 18.4% for Nigeria, 35% for England and 50% for Ghana.

In summary, bronchial asthma is the commonest chronic respiratory disease seen at ACH, almost all of the patients being residents of the highlands of Asir; it is particularly prevalent among young Saudi females. All had used Western medicine but a high proportion of patients had also used local forms of treatment of which the two most popular were cauterization of skin and ingestion of honey.

**References**


**Drug Serendipity Reporting**

Sir,

It often happens in medical practice that a physician discovers an unconventional salutary side-effect of a known drug while he is employing it conventionally to treat a specific condition. The accidental discovery is made possible either because of the existence of an additional simultaneously occurring disease in the patient that also responds favourably to the drug, or because the astute physician notices a previously unmentioned pharmacological activity of the drug that could be exploited to treat certain other diseases.

It is only fair that the discoverer be given some credit or recognition, albeit non-financial, for his work. At present this is not possible if he does not possess, in addition to his medical competence, a flair for publishing and a certain professional standing in the medical society.

To overcome this difficulty I am proposing the establishment of a Drug Serendipity Documentation Centre that would document such finds in chronological order. It would issue forms, not unlike the Yellow Card used for reporting adverse drug reactions, to physicians who would have only to complete and mail each form to the said centre at their earliest convenience.

Information concerning any particular treatment would be released by the centre in abstract form as soon as a critical number (depending on the prevalence of the disease) of identical entries was reached, giving priority to the first entry if no mention of the treatment has been made in the literature prior to the date of that entry.

**Acute Renal Failure Following Prolonged Swimming**

Sir,

We report a case of acute renal failure following prolonged swimming in cold water which should remind us that cold muscle injury can still occur even in hot countries like Saudi Arabia.

A 33-year-old healthy Saudi male collapsed at Qurayyah Beach near Abqaiq after swimming about 1 km in the Arabian Gulf, following a motorboat accident. He was resuscitated by onlookers before being transferred to ARAMCO Abqaiq Health Center where he was found to be barely conscious, hypothermic with an oral temperature of 34°C, but breathing spontaneously. Respiratory examination was normal but he had a weak regular pulse of 90/min and unrecordable blood pressure.

His electrocardiogram and continuous cardiographic monitoring for more than 3 h were normal. His blood count and serum electrolytes were normal, but initial
serum creatinine phosphokinase level (CPK) was raised at 1332 U/l (normal range NR 35–232 U/l).

He was covered, left undisturbed, and given warmed 0.9% saline intravenously (iv) 1 l over 3 h. During this time, his blood pressure stabilized at 110/70 mmHg, temperature rose to 36.5°C, and he passed 1000 ml of urine. He was transferred to Aramco Dhahran Health Center complaining of leg and back pain, and had marked calf tenderness.

Initially, the urine was yellow, and later it became pinkish. Dipstick testing was positive for blood, at first in moderate amounts (2+), later it became 3+. The urine was negative for myoglobin. The microscopy of the urine showed at first >50 WBC and 25–30 RBC per high powered field. These values reduced later to 15–20 and 20–25 respectively. The urinary pH was 5.0 at first, later 6.0.

Over the next few days, his urinary output declined progressively as follows, despite adequate hydration:

<table>
<thead>
<tr>
<th>Day</th>
<th>Urine volume (ml)</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>1400</td>
</tr>
<tr>
<td>2</td>
<td>1100</td>
</tr>
<tr>
<td>3</td>
<td>900</td>
</tr>
<tr>
<td>4</td>
<td>620</td>
</tr>
<tr>
<td>5</td>
<td>440 (after 80 mg frusemide iv)</td>
</tr>
</tbody>
</table>

During this period his serum biochemistry deteriorated with blood urea rising from 4.5 to 34.7 mmol/l (NR 2.4–8.7) creatinine from 141 to 998 μmol/l (NR 35–132) and bicarbonate fell to 14 mmol/l (NR 22–34). The serum uric acid concentration which was 1065 μmol/l on the 6th day of admission fell eventually to 315 μmol/l (NR 226–422). He complained of vomiting and lassitude but was normokalaemic.

Acute renal failure was diagnosed and further investigations showed elevation in his serum enzyme activities to maxima as follows:

<table>
<thead>
<tr>
<th>Enzyme</th>
<th>Activity (U/l)</th>
<th>NR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPK</td>
<td>29194</td>
<td>35–232</td>
</tr>
<tr>
<td>SGOT</td>
<td>3256</td>
<td>0–40</td>
</tr>
<tr>
<td>SGPT</td>
<td>1628</td>
<td>0–40</td>
</tr>
<tr>
<td>LDH</td>
<td>6428</td>
<td>100–190</td>
</tr>
</tbody>
</table>

He was transferred to King Fahd University Hospital, Al Khobar, for haemodialysis, and he made an uneventful recovery there over the next 2 weeks. He was well 1 month after discharge, with normal blood pressure, serum enzymes, and normal renal function—urine specific gravity 1030, pH 5.5, serum urea concentration 2.08 mmol/l, serum creatinine concentration 141 μmol/l, normal serum electrolytes, and normal kidneys on ultrasonography.

This case reminds us that hypothermia can still occur in very hot countries like Saudi Arabia in appropriate circumstances. The accident occurred in the winter of 1988 and the patient presented with mild hypothermia following prolonged swimming in cold water. Although the temperature and blood pressure returned promptly to normal and the patient passed 1000 ml of urine during resuscitation, hypotension, hypothermia and hypovolaemia all probably contributed to his renal failure. However, each of these factors lasted too briefly to have played any dominant role by itself, but together they set the scene for renal failure induced by myoglobinuria.

Severe muscle pain and tenderness, together with the great elevation of muscle enzymes is diagnostic of acute rhabdomyolysis.1–4 Failure to detect myoglobinuria does not exclude it, as the myoglobin molecule is small, passes rapidly through the kidneys, and is not always detected in the urine, even when actively sought.4,6

Doctors in emergency and primary care settings should be aware that renal insults which may be individually innocuous, may, acting together, precipitate acute renal failure. This may not be evident at first in circumstances where it may occur. Routine tests of renal function like serum urea and creatinine concentrations take time to change, and their initial normality should not lead to the assumption that all is well with the kidneys.

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Acknowledgement
We gratefully acknowledge the helpful suggestions of Dr. C. A. Lawrence, nephrologist ARAMCO Dhahran Health Center.

References

Acute Dystonic Reaction to Domperidone

Sir,

Antiemetic drugs are widely prescribed for the symptomatic treatment of common childhood ailments such as gastroenteritis. However, such therapy is not without hazard as is highlighted by the following case.

A 3-year-old girl presented to her general practitioner with a 3-day history of diarrhoea, vomiting and fever. She was prescribed a standard WHO formula of oral rehydration salts and domperidone suspension in a dose of 2.5 mg thrice daily for 6 doses. Though her primary problem improved over the next 48 h, she then developed stiffness in her legs with difficulty in standing and
walking. On examination she was alert and adequately hydrated with normal vital signs.

Neurological examination revealed symmetrical and sustained spasm of abdominal and lower paraspinal muscles, and the extensors of the hips and knees. The ankle and knee jerks were symmetrically hyperactive and the plantar reflex was bilaterally flexor. The patient walked with a rather bizarre stiff gait. There was no nuclear rigidity; Kernig sign was positive from spasm of the hamstrings; Brudzinski sign was negative. The rest of the neurological examination was normal, as were the other systems.

Investigation revealed normal haemoglobin, leucocyte count, blood urea, electrolytes and calcium levels. The CSF and radiographs of lumbar spine, pelvis and hip joints were also normal. Her dystonia resolved spontaneously over the next 12 h and there was no recurrence or residual problems on follow up a week later.

Dopemirone is a benzimidazole derivative with potent antidopaminergic properties and antiemetic actions similar to metoclopramide. Unlike metoclopramide, however, it does not readily cross the blood–brain barrier, and is thus believed to cause less central nervous system toxicity. Its antiemetic action is probably mediated peripherally through blockade of dopaminergic receptors in the gut. However, untoward neurological reactions such as drowsiness, convulsions and dystonic reactions have been reported in infants, children and adults, usually with the higher doses used in cancer chemotherapy. Infants may be particularly susceptible to even normal doses owing to immaturity of the blood–brain barrier. In gastroenteritis, other factors such as dehydration and acidosis could contribute to increased susceptibility to untoward reactions.

Whereas the hazard of an acute dystonic reaction to metoclopramide is well recognized, the purpose of this communication is to emphasize that even a supposedly safer alternative such as dopemirone is not without the risk of a similar reaction, even in the usually recommended doses, and to caution against its indiscriminate use in children. The rational approach to vomiting in childhood gastroenteritis would be the correction of fluid and electrolyte deficit by oral or parental rehydration rather than the use of antiemetic drugs.

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References

Serum Zinc Levels in Saudi Patients With Chronic Liver Disease

SIR,

We read with interest the article by Abu-Farsakh et al. in the November 1989 issue of Saudi Medical Journal on the frequency of abnormally high and low levels of serum zinc, copper and iron in Kuwaitis. We report here our estimations of serum zinc levels in Saudi patients with chronic liver disease. There were 115 patients, 65 males, mean age 49.1 years and 50 females, mean age 49.8 years. Hepatitis-B related liver disease and schistosomal liver fibrosis were the most frequent diagnostic categories.

Blood samples were collected after an overnight fast and the serum separated and stored at −20°C until analysed. Serum zinc was determined by the method of Jacob. Briefly, working standards (May Baker zinc standard 1000 ppm) were prepared at 10, 20, 30 and 40 μg/dl which corresponds to serum zinc 50, 100, 150, 200 μg/dl respectively using glycerol reagent grade for dilutions. The serum samples were thawed to room temperature and mixed by gentle inversion of the tubes. Two- and five-fold dilutions of the specimen in deionized water were prepared in plastic tubes. The working standards were aspirated into the atomic absorption spectrophotometer (SP 2900 Pye-Unicam atomic absorption spectrophotometer) using a Pye Unicam hollow cathode and an air acetylene flame, starting with the most dilute sample until a stable absorbance reading (at 213.8 nm) was obtained. A calibration curve was constructed from the readings of the working standards. This was used to calculate the concentrations of zinc in the test samples. (Reference value for adults = 70–172 μg/dl)

A total of 44% of patients had low serum zinc, (mean ± SD) 48.3 ± 15.3 μg/dl; 51% had zinc levels in the normal range, 101.1 ± 21 μg/dl; while 5% had high zinc levels 215 ± 20 μg/dl. The values of serum zinc were independent of age, aetiology of liver disease or degree of liver function impairment or clinical encephalopathy (data not presented).

Zinc is an integral part of at least 20 enzymes in man. With reference to the liver, zinc deficiency leads to decreased levels of ornithine carbamoyl transferase (OCT), an enzyme required for detoxification of ammonia and synthesis of urea. Therefore, zinc deficiency could contribute indirectly to the high CSF and serum ammonia observed in patients with hepatic encephalopathy.

Reding et al. showed that therapy with zinc acetate 200 mg three times daily for 7 days improved encephalopathy in a group of cirrhotic patients. Zinc deficiency has also been associated with testicular atrophy, hypogonadism, dysosmia and failure of dark adaptation all of which are features of cirrhosis. However, evidence concerning the incidence and clinical significance of zinc deficiency in liver disease are conflicting. Our study confirms that hypozincemia occurs in some patients with chronic liver disease. High phytate and fibre content

in diet and excessive zinc loss in sweat in a hot environment have been postulated for this state but we have no data on any of these. Zinc balance studies are required in order to determine the true status of body zinc in cirrhotic patients and psychometric tests may also be necessary to enable detection of subclinical encephalopathy in cirrhosis with hypozincaemia. Further studies are indicated to determine the true contribution of zinc deficiency to the clinical abnormalities in our cirrhotic patients and to determine whether zinc supplementation has any value in the management of these patients.

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Acknowledgement
This study was supported by a grant from Research and Planning Department of the Ministry of Health.

References

Brucellosis in the Asir Region of Saudi Arabia

Sir,
I am always glad to receive the Saudi Medical Journal which I read with great interest. In the January 1991 volume I was especially interested in the article: Brucellosis in the Asir Region of Saudi Arabia (Saudi Med J 1991; 12(1): 37-41) as I have seen a good deal of brucellosis while working in various parts of the Middle East. I was very impressed by the incidence in camels as shown in Table 5 as I have always suspected this animal as a source of infection, but often have difficulty in persuading anyone else of this likelihood. In fact I have found often an unwillingness to regard brucellosis as a likely disease in man or animals in some areas.

My real reason in writing is to draw attention to an incorrect reference, namely Reference 19. This shows W. Dalrymple-Champneys as author of a chapter in my book Infectious Diseases: epidemiology and clinical practice; the reference also cites me as editor. I am, however, sole author, not editor, of the book (now in its 4th edition) and no one else has contributed to it. W. Dalrymple-Champneys is quoted in my book (as Reference 7) as author of Brucella infection and undulant infection in man, Oxford University Press, London. The authors of the article have got this confused. I thought I should bring this to your attention: it is perhaps a small matter but I know from many years of writing and publishing how such mistakes can lead to quite a lot of confusion.

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