More is known of the death of animals on American aircrafts than of the Homo sapiens species! Drawing by Saaid Rahbeeni

The emergence of in-flight medical emergencies

Our aircraft was flying over East Africa after departing Johannesburg en route to the Middle East. I was woken from my deep slumber in the uncomfortable economy class middle row seat by a friend. The request was urgent, even pleading: 'Is there a doctor on board?' I went to the distressed person; a burly man squeezed in between two fellow passengers. The passenger facing the aisle politely vacated his seat, and I soon established that the hypertensive, diabetic and heavy smoker was experiencing chest pain six hours from our destination. 'The Captain wants to know whether we should divert the flight,' a flight attendant asked. The engine noise precluded a decent history from being taken and made auscultation difficult. The patient was sweating profusely and clutching his chest. 'Is it a heart attack?' the attendant asked, standing in attendance with a medical kit and multiple papers to fill in.

I was well aware of the implications of diverting a flight. Passengers would land at a strange airport and facilities might not be adequate to handle an additional supersized aircraft. The medical facilities at the proposed emergency city were woefully inadequate and I doubted whether a cardiac catheterisation laboratory with the ability to insert stents into the coronary arteries was available if it turned out to necessary. Aircrafts normally depart with a full load of fuel and this mass makes it too heavy to land immediately or a few hours after takeoff; and we would most likely have to dump fuel in order to land at our proposed emergency destination. Such a diversion would have unpredictable delays, and many connecting flights would be compromised, including my own! I decided to question the patient in more detail and soon established that he had these attacks before and usually was given anxiety medication for it. His chest pain was on both sided, but predominantly on his right side, which he injured about two weeks previously. He had cardiac investigations a few months before this journey for the very same problem. In my mind, despite his risk factors for cardiac disease, I was comfortable in excluding a heart attack and conveyed that to the Captain, volunteering to sit next to the patient for the remainder of the flight. I was requested to fill in a number of forms, which I duly did. I stayed seated next to him until we reached our scheduled destination. He was fine.

So, how often do in-flight medical emergencies occur? Let us consider

TRAVEL MEDICINE

By Dr Salim Parker - President-elect - SASTM

that there is projected to be 3.5 billion air passengers this year, of which 1.2 billion will travel internationally. Then add in the fact that more than 50% of adults in countries such as Britain fly at least once a year, with the age group 45-55 the most represented. Let us take into account that aircrafts are getting larger and can carry up to 800 passengers;, that the flight duration can exceed 18 hours, and that an increasingly aging population is now travelling in an era of less travel restrictions. Everyday events are bound to occur: there are going to be more attempts to join the mile high club, some passengers are bound to get sick, and a few are going to die. Air travel is probably the safest mode of travel (much safer than competing in a car with taxis on our suburban roads) and flight attendants are unlikely to be involved in an emergency landing during their entire career.

There are inadequate studies available on in-flight emergencies. In fact, more is known about animal deaths on American aircrafts than the demise of Homo sapiens! There is no standard legislation compelling airlines to report incidents in a comparable manner, and it is one field in the travel medicine discipline that is based more on expert opinion than on hard facts and evidence based medicine. Some airlines would report fainting under neurological events; others would ascribe it as hypotensive episodes and classify it as cardiac in origin. A survey attempted a few years ago amongst 1318 airlines asking how incidents were documented elicited only ten responses; another study soliciting information from 32 airlines had two carriers refusing to participate, 28 providing information that could not be used and hence only two airlines providing information that could be published!

The most recent statistics show that there are more than 44 000 in-flight medical emergencies annually. That sounds like an epidemic, but then there are statistics, statistics and the (mis)representation of it. If consideration is given to the number of passengers and the number of flights undertaken, it equates to one emergency for every 604 flights. There is one diversion due to a medical emergency for every 20 000 flights, of which 40% turn out to be unjustified. So, paradoxically, though the numbers seem large, the actual incidence, and the chance of a medically trained passenger being on board and asked to assist, is quite small.

As always, preventing such events should be prioritised by any medical practitioner. It is abundantly clear that pre-flight screening plays an important part and in one study, no one who was screened suffered from an in-flight emergency. Tellingly, of those who suffered a calamity, not a single one had a medical screening done! It is known that exacerbation of an existing medical problem leads to more than 65% of emergencies, and paying attention to the optimal control and management via a proper consultation is vital. Why was a doctor called for when a passenger had an asthma attack? Because the inhaler was forgotten at home! Similarly, placing lifesaving angina tablets in the checked-in baggage instead of in the hand lugage is a not infrequent call for medical assistance when an angina attack occurs. People with Diabetes on insulin need proper counselling; I had to warn fellow passengers on more than one occasion NOT to inject themselves as soon as a food trolley is sighted, but rather to wait until they actually received their meal. Most of us know that the food can take an inordinately long time to arrive; long enough for even healthy passengers to become hypoglycaemic, not to mention a person with diabetes who injected a large dose of insulin!

The reality though is that a medically trained frequent flyer might be called upon at any given moment to render medical assistance. Knowledge of what is required and what equipment is available will greatly alleviate any anxiety in such a situation.

Next issue: The dreaded call: Is there a doctor on board?

Some airlines allow passengers with CPAP machines onboard. Will all aircrafts need a nurse or doctor on board in the future