Deep Vein Thrombosis and Air Travel

In Thrombo-plebitis the blood clots formed do not travel, and there is no danger of Pulmonary Embolism. The commonest symptom of pulmonary embolism (PE) is sharp chest pain with or without breathlessness. If the circulating clot is large it would be life threatening. Each year in Australia there are up to 400 deaths from pulmonary embolism (PE) and of these only a small appear to be associated with air travel. However, it was the publicity surrounding 2 unexpected deaths from pulmonary embolism — a blood clot travelling from the legs to the lungs — after long-haul air travel in 2000 that sparked renewed interest in the issue and much public debate.

Some pre-disposing factors include smoking, age, obesity and pregnancy. Use of oral contraceptive pill and hormone replacement therapy among post-menopausal women is another cause for concern. Other causes are cancer, lower limb injuries or surgery, family history of DVT and previous history of thrombosis or embolism. The Australian Society of Thrombosis and Haemostasis recommends the following to avoid DVT:

- Drink plenty of (non-alcoholic) fluids during flights.
- Regularly mobilise the ankles and massage the calves.
- Wear loose, non-restrictive clothing.
- Avoid excessive movement around the cabin, as the risk of injury from turbulence may outweigh the benefit of exercise.
- Be vigilant for the symptoms of DVT, in particular pain in the calves, during and for up to a month after long flights. If symptoms occur, seek medical advice without delay.
- Most airlines on sky screen demonstrate the type of ankle exercises you should do regularly whilst sitting down for long hours on a plane. The movements make the peripheral calf muscles to freely pump the venous blood towards the heart. These exercises must be carried out frequently by all long distance travellers. Deep Vein Thrombosis is very rare among the Asians, but the demonstrated exercises should be done frequently on flights by all travellers.

The body has two blood pumping machines, one is the heart and the second pump is in the periphery - the calf muscles.

Economy Class Syndrome

Cramped seating in the cabin, prolonged inactivity caused by inadequate space may slow down the venous blood flow, producing swelling (oedema) around the ankles. This swelling could be due to lymphatic stasis in the lower limbs due to the same cramped seating positions.

Low cabin pressure, low humidity has a dehydrating effect that concentrates the blood making it sluggish. Alcohol makes you more dehydrated and acts as a minor factor for clot formation.

DVT is rare among business class passengers.

Symptoms of DVT

The symptoms first appear locally on the lower limbs, especially in the area of calf muscles.

Pain and tenderness in the affected leg are the commonest symptoms, especially on movement at the ankle. In some cases DVT does not give rise to any symptoms.

Swelling around the ankle region may appear subsequently, and the area of the skin will be warm and red in colour. The redness is not visible among the dark Asians.

Prevention

General preventive strategies for developing DVT include lifestyle factors. Keeping a steady healthy weight is important. This could be achieved by exercising and proper dieting.

Sri Lankan ladies after a certain age give up keeping slim and most never exercise. In spite of these factors, fortunately, DVT is rare among the Sri Lankan ladies.

Treatment

On plane travel if you experience calf pain and tenderness, promptly call a flight attendant and request for a crepe bandage. This should be wrapped from bottom, starting at the ankle right up to the knee area quite firmly. This compression required to prevent clot travelling. Drink plenty of water, abstain from alcohol consumption.

As soon as you land, see a doctor who’ll order an ultra-sound (duplex ultrasound) to confirm. If the doctor is not satisfied with negative results, he may order a venogram.

Venogram uses an X-ray image to track the distribution of a special dye injected into the vein at the ankle.

If symptoms are severe with difficulty in walking you may need hospitalisation. Intravenous drugs such as heparin will be given through drip to dissolve the clots.

Rare cases surgery may be required if there is no improvement.

According to the www.airhealth.org 3.5% of air travellers will develop clots. Most experts do not agree that clots are formed direct due to air travel. In the absence of large-scale studies, some airlines feel there is no scientific basis to warrant thrombosis prevention on flights. Ironically, most airlines in flight magazines include extensive instructions on how to avoid DVT during flight. However, the apparent increase in risk has prompted some afflicted travellers to site the Warsaw Convention of 1929, which holds airlines liable for damages when passengers are injured by an accident, as grounds to file negligence claims against the carriers. The debate is whether a blood clot is a preventable event, or an individualized reaction to normal flight operations.

Dr Harold Gunathillake

Always Wear Sunglasses

UV radiation can hurt your eyes just like it does your skin. Effects add up and can cause problems like cataracts, cornea burns, and even cancer of the eyelid. Whenever you’re outside -- even on cloudy days -- wear sunglasses or contacts that block 99% to 100% of UV-A and UV-B rays. Protective lenses don’t have to be expensive, just check the label. Hats block exposure, too. Snow, water, sand, and concrete all can reflect UV rays.